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ABSTRACT

These proceedings contain presentations, discussants' remarks, roundtable discussions, and papers from poster sessions and panels. Selected titles of particular relevance to the field of education are: "Factors Affecting the Probability of Accepting a Retirement Incentive: Evidence to Support Retirement Planning Education" (Hogarth); "Advertising and Ideological Content in Free Consumer Curriculum Materials" (Rudd, Buttolph); "Consumer Education: The Business Sector's Contribution" (Haney); "A New Agenda for Consumer Education: A Challenge to ACCI" (Zelenak); "College Student Usage of EFTS and Locus of Control" (Churaman); "Health Maintenance Organizations and Consumer Education" (Miller and Henderson); "Course Requirements, Job Responsibilities, Compensation for Financial Counselors: The Industry View" (Langrehr, Langrehr); "The Scope of Consumer Education as Reflected in Interdisciplinary Curriculum Guides for Secondary Education Programs" (Cunningham, Miller); "Knowledge of Men and Women about Consumer Credit Laws, Insurance, and Estate Planning" (Perch). (YLB)

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PROCEEDINGS

31st Annual Conference

of the

AMERICAN COUNCIL ON CONSUMER INTERESTS

March 27-30, 1985
Fort Worth, Texas

Edited by

Karen P. Schnittgrund
University of California
Cooperative Extension
Riverside, California

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PROGRAM

AMERICAN COUNCIL ON CONSUMER INTERESTS
31st Annual Conference
March 27-30, 1985

Fort Worth, Texas

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FROM THE EDITOR

The 31st Annual Conference of the American Council on Consumer Interests provided the opportunity for presentations and discussions of many areas of concern related to consumers. This year the Conference had no theme which allowed participants the freedom to submit papers on a variety of issues including home equity conversion, consumer education, consumer welfare, simultaneous equations, and the changing financial market. Sessions were presented on these topics along with many other stimulating papers from special guests.

All speakers on the annual conference program -- those presenting refereed papers, participating in panels and symposia, invited speakers, and the Colston Warne lecturer -- were invited to submit camera-ready manuscripts, typed to Proceedings specifications for inclusion here. The cooperation of presentors and support staff has been excellent and is greatly appreciated.

The program chair, Nancy Rudd, provided us with an excellent program and is to be congratulated for that effort. Appreciation is also extended to the speakers, manuscript reviewers, and local arrangements committee. Special appreciation is extended to Beverly Barlin and Sandra Burright for their technical assistance in the preparation of the Proceedings.

Karen P. Schnittgrund
University of California

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WHAT IS IN THE CONSUMER'S INTEREST?

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ABSTRACT

Benefits to consumers must come from somewhere. An examination into various approaches ranging from information and education through increasing competition to government regulation or protection or direct provision of goods and services reveals difficulties in concluding what is best. We suggest a few possible new approaches, and of course call for more research on what would be worth doing.

We honor Colston Warne today, so it is appropriate to start with a few personal recollections. I first met Colston Warne in 1954 when he asked me to run for election to the Board of Directors of Consumers Union. He told me that they had just been cleared by the U.S. Attorney General's Office and removed from the Attorney General's list of subversive organizations, one of the very few ever removed from that list. Consumers Union remained on the notorious list of the House Unamerican Affairs Committee--remember McCarthy? Some years later, a Professor of Mathematics at the University of Michigan who insisted on a particular brand of appliance because, as he explained to the clerk, it was a Consumer Reports best buy, was told by that clerk that Consumers Union was a Communist organization. The Professor responded, "It is? I shall have to look into this Communism, for that is a very good magazine."

I was elected, and minutes before my first Board meeting started, Colston took me aside and mentioned that there was a bit of division on the Board. That turned out to be an understatement. The current director, Arthur Kallet and his assistant were both voting Board members, and they were making direct payments for services to some other Board members who always seemed to vote with them. Through this and many substantive battles of the Board over issues ranging from testing noxious products like liquor, guns, or cigarettes to deciding whether CU should register as a lobbying organization, Colston never seemed to lose his Yankee cool. At first I wondered why he did not passionately espouse one side or the other of these controversies. Then it dawned on me that Colston had more sense than the rest of us, and an overriding principle--the survival of the organization. Through the years, many excellent organizations have gone down the drain, split up over some issue which in retrospect seems trivial or irrelevant in the long run.

So, I can attest, the survival of Consumers Union is largely the result of the farsighted and self-sacrificing devotion of one person, Colston Warne. A careful recital of the many and varied crises that arose would reveal that no formula, no appeal to one principle, would have worked. What worked was tireless and ingenious attention to solving each problem in such a way that the good work of Consumers Union could continue. The issues and crises continue, and we can only hope that the ethos developed during Colston's long Presidency will continue, even with the kind of strong-minded often legalistic people who serve on such Boards. Recent years have seen additional proof of the failure of rigid rules in a complex and changing society. Many social experiments, bowing to scientists' insistence on proper design of experiments, have seemed to fail because any rigid set of rules, particularly in starting something new, is almost sure to fail. Our society needs other new organizations and institutions to deal with old and new problems, and Colston's problem solving approach may well provide the model for a kind of meta-experiment where we combine criteria, measurement, and controls with flexible experimenting, not testing operating rules, but developing problem-solving procedures.

Colston was also a warm and friendly person, interested in people as well as problems, and never self-serving. In one crisis when a hostile Board member insisted on disclosure of his income and wealth, we were all appalled at how little he had kept for himself. The problem is that Colston is so forgiving that it is difficult to get him to admit just how difficult many Board and Staff members have been over the years, or how absurd some of the positions. We all owe him a great deal.

I could go on, but my task is to say something about what is in the consumers' interest, and hopefully start a discussion on that question.

In order to be sure we are doing good well rather than badly, and that good will is matched by good judgement, we must ask tough questions about any proposed action, rule, law, or change: what the benefits and costs are, and to whom. It may be impossible to do a complete cost-benefit analysis, but we can at least ask where the benefits are to come from. Are there excess profits to be tapped, inefficiencies to be eliminated, or what? Even when there are monopoly profits, they are commonly converted into rents by selling the rights to them to other people. This makes it difficult to eliminate the resulting inefficiency without the possibility of creating new inequities. It may be someone's lifetime savings that bought the taxi license, or the right to grow tobacco, hops, or the A T & T stock. The great contribution of welfare economics to thinking about problems was to insist on separating issues of incentives and efficiency from those of equity and redistribution of income. The second set set of issues, those of fairness, mostly involve zero-sum games where one person's gain is someone else's loss.

There is a large and sometimes discouraging literature on cost-benefit analysis and its offspring with the dismal acronym PPB (planning-programming-budgeting), where the criterion is not the consumer interest but some presumably broader public interest. It is discouraging because application often involves so many heroic assumptions or decisions that "actual measurements are but concealed preferences". (Peter Steiner, "Public Expenditure Budgeting"[6]). But we do need to spell out the objectives of any proposal, and the conflicts among them rather than leave issues and conflicts concealed, and policy makers with too much discretion. Even if the consumer interest is not quite so comprehensive as the public interest, let´s return to it. What can we point to that promises net gains to consumers?

There can be real gains, where everyone can be better off, and we can gain in both credibility and efficiency if we can identify them. We might, for instance, focus on preventing the creation of new monopoly rights, since the old ones are so difficult to abolish without hurting innocent victims. Is the strict regulation of nursing homes so restricting entry that existing ones make large profits, then sell out to other buyers who then must continue charging high prices in order to earn a modest return on their investment?

We can think of two kinds of gains: First, consumers can gain from making better choices, not better because I say so, but because they do not regret them, and would not do so even if they had better information or understanding. Second there are gains, even to the most sophisticated of consumers, from laws or institutions that assure they will not be defrauded, exploited, overcharged, misled, endangered, or unduly restricted in making those wise choices.

With such a benefit/cost focus we can talk reasonably about the proper role of government regulation, of consumer protection, of consumer information and competitive markets, and of government provision of goods and services (socialism if you will). And we can ask whether disclosure legislation and anti-monopoly activities can be sufficient for markets to assure a high correlation between price and quality, i.e., efficient markets.

There are cases where market competition cannot possibly assure either efficiency or equity, particularly when the customer has no recourse, as with government services or monopolies. You cannot go to a different Internal Revenue Service if you do not like the service you get. Ombudspersons, or Consumer Advisory Boards like those in Britain, may help, but are unlikely to be sufficient. Some of us have proposed a continuous poll to monitor such services and publish comparative ratings of them to shame them into better performance. Publication of comparative, quantitative ratings seems likely to excite improvements, if not to avoid future embarrassment, then because of the threat of a taxpayers´ revolt. There are other situations where the benefits of competition may be exaggerated, and perhaps telephone service is an example. But there are also cases like trucking where regulation benefits largely the regulated, and the resistance to deregulation should alert us all to its benefits.

There are clearly large potential gains in letting competitive markets drive out the bad buys and reward those who offer better bargains. Would better consumer information help, or are insights and understanding also needed? Perhaps the largest potential gains to consumers might come if they understood better the implications of their own choices, and had the information they needed to make choices they would not regret, and the insights how to assemble and interpret that information. Insight may be more important than facts, and is surely necessary to reveal when facts are needed, and which ones. Herbert Simon once dramatically pointed out that in a world where time is a scarce commodity, information may be a nuisance, diverting our attention from what matters to what does not.

Ultimately we face a choice of strategies--should we rely on informed consumers so long as markets are competitive and disclosure regulations assure adequate information? That assumes that consumers or at least some critical mass of them, have the insight to know what facts they need and how to integrate them into a meaningful analysis of benefits and costs. If we believe that the vast majority of consumers are unable to cope with the complex economic decisions they must make, then indeed we may want to turn to various regulations, protection agencies or even government provision of goods and services. However, I have the uneasy feeling that the slow process of developing rules and laws is unlikely to keep up with the rapid invention of new deceptions and types of fraud.

In all this we must account for the sheer cost of decision-making. Many of us rebel at the confusion and complexity of the decisions we are asked to make about telephone service. We have the uneasy feeling that we have not really reduced the total profit of the deliverers of telephone service, merely divided it up among more companies, while increasing the possibility of bad decisions that we shall regret, like buying a cheap phone that doesn´t work. We may even have arranged it so that the large users can get things cheap while the majority end up paying more. We may have given up the technical efficiency of a single large system and gotten more inequity in the bargain.

A major problem in relying on informed consumers is that the sources of information, particularly on complex economic decisions, mostly come from biased sources with something to sell. (a) Those with Independent Retirement Account deals to sell are not about to tell you about the possibilities discussed by Walden [7] in the last issue of the Journal of Consumer Affairs of investing in capital gains investments instead, so that the ultimate income is not fully taxable, either. (b) Nor will those helping you work out wills and estate problems be likely to promote the trusts that only come into effect when you die, since other types of trusts earn trustee fees every year. (c) Nor will banks holding a trust document written before the Estate Tax law was changed suggest that you might now be wise to throw away that instrument since it is not needed and might only cost some unnecessary fees to the trust department. (d) On the other hand, you might fail to notice that the variable interest mortgage the bank seems to want to sell you may actually be to your advantage, dividing up the capital gains and losses fairly in proportion to your and the bank´s actual equity in the house at each point in time. (That is, provided market interest rates properly reflect a low real interest rate plus the current rate of inflation, and housing prices move with the general inflation.) There were, of course, some unfair types of variable-interest mortgages, picked up immediately not by the consumer movement but by the Wall Street Journal. They tied the mortgage rate to the bank´s "cost of funds" which was sure to rise faster than either market interest rates or inflation. But the principle of sharing the capital gains, or losses, in proportion to current equity in the mortgaged asset is clearly equitable and a sophisticated consumer movement should say so. I interest rates fall, consumer-borrowers would benefit immediately.

Up to date information should be worth paying for, but with the plethora of "free" information it seems doubtful that it would sell. It is particularly difficult because without the insight to know when you need what information, you are not motivated to seek or pay for it.

What this points to is that we need to know what is in the consumer´s interest, and also how to educate the consumer so that he/she will know what information is needed and how to act on it. Unfortunately, we know that there are areas where consumers appear to have persistently biased perceptions or risk, or notions about what costs to count. They may not believe the odds in a gamble even if they are told. And there is plenty of evidence that in spite of what economists say they pay attention to past (sunk) costs. Kahneman and Tversky provide many experiments and a recent article by Arkes and Blumer summarizes the evidence. [1]

Even where it has seemed clear that government action was called for, so many mistakes have been made that there is understandable resistance to any more action. We controlled some auto emissions, but reduced mileage when gas was getting scarce, and left the emissions that produced the acid rain. We suggested insulation methods that were dangerous, and changes in detergents that produced other problems.

Is it possible that our best bet in the near future is to focus on disclosure as the one clear area of potential benefit to consumers? Should state lotteries tell what fraction of the total amount bet gets paid out in prizes? Should manufacturers report the frequency with which their repair warranties are exercised? Should there be public information on the value of various monopolies -- the prices at which various rights like taxi licenses or the right to grow tobacco are sold -- or the difference in price between protected and open markets? Should all capital gains on sales of businesses with any revenue from the government be reported, e.g. when a nursing home is bought up by a conglomerate, or a company making medical equipment is sold? Would it be useful to know the property holdings of all members of the local zoning board in your town, or the assets of anyone else with potential conflict of interest? Would publication of estimates of how much import quotas raise the prices of cars help, with or without the important additional insight that much of the benefit goes to foreign and domestic producers, without even the revenue to the US treasury that a tariff would produce? Perhaps publicity about dramatic cases of the latest frauds and deceptive techniques would save more of us from trouble than punishing a few perpetrators at great cost.

What about more complex disclosures? For example, financial institutions often write installment paper at higher-than-market interest rates, then rebate the excess, euphemistically called a dealer reserve for bad debts, to the seller, allowing the seller to make the sale price look cheaper than it is. The financial institution, in turn, may include some overpriced credit life insurance in the deal, on which it gets a rebate from the life insurance company, allowing the bank to make the credit look cheaper than it is. Would disclosure of the amounts of those rebates alert the customer to the truth? Would it discourage that kind of "competition" among insurance companies for the lenders´ business, and among lenders for the sellers´ business?

In thinking about these issues, I seem to see a choice we face between going for small gains in the short run and often for a few people, or more global and lasting improvements. Many of our battles seem to me to be of the first kind, and may even be sub-optimal, blinding us to larger, more long-lasting benefit possibilities. I do not mean to belittle the heroic efforts of consumer activists, whose devotion and energy and courage and skill I admire. I even try to do some of that myself. Rather than quibble about who is doing what, let me paint a somewhat olympian view of possibilities and perhaps we can focus the discussion on whether they can be achieved:

NATIONAL ACTION

At the national level, it is clearly in the consumer´s interest to have many things we now have: Consumers Union publishing Consumer Reports, various health and safety programs and laws, both public and private protections against monopolization, regulation of natural monopolies like the public utilities, and protection against fraud and deception. Would more disclosure legislation do more good than extending the present set of protections? What is disclosure, and what might it do?

Examples may serve here better than resounding statements of principles. Suppose any option offered to consumers that involved some risk or gamble was required to give an estimate of the probabilities involved. In the case of a lottery that could take two forms: the number of tickets issued, or the average ratio of prizes paid out to total amount wagered. The second is more general, since it is estimable even when there are varied payoffs or prizes or the number of lottery tickets to be sold is unknown. Notice, however, that the consumer has to understand the notion of expected value, and be able to understand that if the average payout ratio is 50%, the expected value of his $1 bet is 50 cents, and that if he keeps on betting, he can expect to lose an amount equal to half the amount he bets.

But since even in the best of cases we would not like to depend on the sellers of goods or services to give us unbiased advice about them, all the advantages of free market competition--choice, efficiency, innovation--will only come if the consumers can have confidence in their choices. A vast expansion of information combined with the essential insights for its use is called for. A few examples of the problem:

Take the rate of return on alternative investments. A number of authors, including Dick Morse, and Glasgo et al in a recent issue of ove Journal of Consumer Affairs [3], have argued for an annualized effective yield assuming reinvestment at the same rate, so that all investments are directly comparable, without requiring individuals to be able to recalculate.

A related area is life insurance, which commonly combines insurance with a savings-investment feature. Belth and others have long argued that it is misleading to assume some interest rate, and then derive a net cost of the insurance, since any interest rate other than the current market rate allows insurance companies to design policies which play games with the apparent net cost of the insurance. But life expectancies are reasonably stable, so one can (with an iterative computer program) take out the cost of the insurance, and estimate the rate of return on the savings part of the policy. The Federal Trade Commission once issued a study arguing that in most policies this rate was around 2% and that companies should be required to inform customers what the rate was. But just to illustrate the importance of economic insight, customers would also have to be informed that since the accumulation in an insurance policy is not subject to income taxes, a fair comparison with other investments would require translating the rate into a before-tax rate, the size of the adjustment depending on each individual's own marginal income tax rate. Once adjusted, however, that rate is simply and easily compared with rates of return on other investments. Another problem is that the consumer needs to understand the time pattern of his insurance needs --how they drop as time passes. The simple commonly-heard recommendation of renewable term insurance might easily lead to the wrong lifetime pattern of coverage!

Rather than waging individual battles about allowable costs in regulated activities from utilities to nursing homes, we might argue for an overall rule that says what whenever a substantial fraction of the income of a business comes from government expenditure or is from a price-regulated activity, then the only allowable basis for depreciation costs in calculating tax liability or allowable prices should be original cost of the physical capital. No one could then buy up a business at the capitalized value of its excess profits, then use that price as basis for depreciation charges to reduce their taxes. The logic is clear: when we cannot really control profits, the market value of a business is no justification for its tax treatment. A recent report on nursing home costs sees the problem but does not suggest the tough answer. (John Holahan), How Should Medicaid Programs Pay for Nursing Home Care? [4])

An even more difficult area where the potential intellectual burden on consumers may be great is in any area of risk. Rachel Dardis [2] has an interesting article on product safety pointing out the advantages of relying on informed consumers, who can take account of their own attitudes toward risk and ability to take risk, and can be induced to be careful, as against the regulatory approach. But she also points out that regulation may have advantages where others are affected. Mandating the use of seat belts might save money for all of us who pay insurance premiums, and other regulations like those on smoking would reduce risk to others and their tax-supported hospital costs.

Most recently, it took some glaring facts, and complaints from technical economists, as well as political conservatives, to make us aware that the quotas on imports of cars were producing excess profits for Japanese car makers, allowing American car-makers to raise prices and maintain higher wages than comparable jobs pay elsewhere, hurting car buyers without even producing any tariff revenue to help reduce the Federal deficit. It will be instructive if the Japanese maintain them when we say they don't have to.

ACTION AT THE LOCAL LEVEL

The local community level may well be the place where there are large potential gains because of market inefficiencies, particularly with services like repairs. When Scott Maynes and Greg Duncan and I first started thinking of the potential of local consumer information services, it was the low correlations between price and quality that impressed us. However, mature consideration convinced us that prices not on the efficiency frontier ,that is, not the lowest available for that quality, did not measure the actual losses or the potential gains from improved information and improved market functioning. The reason is simple and is revealed when we ask where the gain is to come from. Since many repair services and retailers make only normal profits, their inability to continue "overcharging" some customers would force them to raise prices to others, cutting out some sales or bargains. So one source of the benefit to the previously overcharged would be the previous bargain hunters. It is difficult to evaluate this redistribution from the smart-careful to the dumb-careless, but it does not seem worth fighting for. But there are also real net gains: once people discover they can trust the market, they can reduce their shopping time and effort, or repair things they might otherwise have replaced. And vendors can devote less resources to advertising, salesmen, and negotiating. And information about customer complaints might well allow businesses to improve their efficiency too. Of course there might be some vendors driven out of business, hence some other redistributional effects.

Such a local consumer information service promises not only real gains to consumers and to society, but an interesting contribution to research and public policy. Two strikingly different outcomes are possible: The distribution of information might so improve market efficiency that consumers could use price as an indicator of quality and would not need additional information. The system could "work too well" and could then not be self-supporting. But it would then clearly have a claim on public funds (taxpayer support). A more likely outcome would be enough change and sufficiently slow consumer response so that the up-to-date information would still be valuable to those who purchased and used it. A self-supporting system could survive and be exported to other communities. And those who did not support and use the information system would still benefit from its existence, including the vendors who would have efficient ways of monitoring and improving their own performance. In either case the same continuous polling of representative samples that collected the market price/quality information would provide the research data on consumer behavior and market responses.

The consumer interest might benefit from other new institutions at the local level. Take for example the possibility of a new medium of exchange that is used to purchase, and earn, and save, hours of work, not money. In an era of unpredictable prices this can have advantages as an inflation-proof store of value. When used to buy and sell personal services to others, it allows a great deal of mutual help in a community without the coercion and potential inequity of "volunteer" systems, or the restrictions of barter arrangements where one must stay in balance with each other person. Scitovsky's brilliant tribute to Abba Lerner [5] points out that with n commodities or services, one needs only n-1 prices to settle, but with barter, one needs to agree on n(n-1)/2 exchange rates! A hundred services require ninety-nine prices, but bilateral bartering of pairs of such services would require agreeing on and setting standards for 4950 rates of exchange! So a new paper currency would help.

Particularly if used in retirement communities to recognize things people can do for each other, such payments would be almost impossible to tax, would preserve equity and the freedom to say "no", and would encourage productive activities of older people. Communities could also "tax" their paper; and use it to pay members to do things for the community. An insurance-type company could collect premiums in the paper currency, and use it to pay for emergency help when people get sick or are injured. In a retirement community, one could even think of an annuity arrangement, since hours of time are not eroded by inflation, where a constant premium would pay for an increasing amount of emergency help as one got older. The basic paper-currency notion has been used successfully for many years in baby-sitting cooperatives, avoiding bookkeeping and many extra phone calls. Of course labor differs in quality, but you can decide whom you hire with this new currency, and vary the number of bits of currency you offer for a job. We proposed calling them AMPS rather than quarter-hours to emphasize the fact that the market should determine the wages even in the new currency.

But let's come back to the issue where the gains come from. Are they redistributive, taking from excess profits or the Rich? If so we need to justify them as such and spell out distributive implications clearly. Hopefully there are possible changes where there is some gain that is not offset by someone else's loss. Often it is not easy to spell out what the result will be. Life insurance companies are not excessively profitable, so what would be the result of better disclosure of the real costs of insurance, and the rates of return on the savings part of policies? Perhaps there would be more price competition and less competition by selling--fewer agents and even lower agents' fees? Ultimately there would be convergence of rates. Hence, people would not have to shop around much--only a few would need to do so. So people could spend less time deciding about insurance, and they might design both a better insurance program for themselves, and a better saving-investment plan. I do not mean to denigrate these gains, they may well be substantial, but it is important to notice that it is not lower prices for insurance that we expect, or that measures the gain, but something much more difficult to specify and quantify.

Take another example, the regulation of public utility rates. One could argue that without regulation, a utility could charge whatever the market would bear, and the stock would appreciate in value to recognize those yields. Then any attempt to reduce the rates would produce capital losses to stockholders, only some of whom would be the original stockholders who had realized the (unjustified) capital gains. Would careful monitoring to assure only a modest rate of return be worth while? Clearly a precise control would remove from the utility all incentives for efficiency or improvement, since there would be no reward for the effort expended or risks taken. On the other hand, looser controls allow incentives, but at the risk of exploitation of the customers. Even putting more of the charge on industrial users and less on home users may not ultimately benefit consumers. Analysis of that trade-off requires a sophisticated analysis, not just of impact but of incidence, of all the changes after things settle down. Keeping industry in the area may benefit everyone more than making industries pay a little more of the utility costs. Do not misunderstand me. I have great admiration for those who fight the battles to keep utilities from getting unnecessary profits and then capitalizing them. Here in Texas, Carole Barger of the Consumers Union Advocacy Office is doing a magnificent job for Texas consumers.

Some changes produce gains to some that are larger than the losses to others, raising the possibility of compensating the losers from a tax on the gainers to leave everyone better off, or at least no one worse off. Developing such mechanisms without letting people play games with them, takes some thought.

IMPLICATIONS

So we come down to asking where are the excess profits that can be appropriated, or the efficiency gains that can be realized for the benefit of consumers? One of the compelling arguments why the American Association of Retired Persons should have and did open up the competition for the insurance they recommended to their members was the extremely high profits being made by the company they had chosen, not offset by the company's gifts to the AARP and related worthy causes. But there are not that many such cases, and indeed consumers would benefit still more if they understood that after the age of 55 most people do not need life insurance at all! The great potential gains probably come from more consumer insight and from increased market efficiencies, largely in reduced costs of selling and shopping. Even here there are some distributional costs or injustices, as salesmen have to find other jobs, and the previously careless or stupid benefit more than or even at the expense of the previously smart or careful shoppers. We have argued, Scott Maynes, Greg Duncan, and I, that a local consumer information service might also increase people's willingness to have things repaired, once they knew whom to trust to do it, and that might increase useful lifetimes, reduce the consumption of resources, but also reduce sales of new replacements, and the incomes of producers and distributors. How does one evaluate such a mixed bag of outcomes? In particular how does one add up social benefits and costs of more repairs and less replacement, and less use of resources? It may depend on how responsible we feel toward future generations, as well as how we weight individuals who gain and lose.

We need a great deal more research, and more articles in the Journal of Consumer Affairs, focusing directly on these issues: Where are potential gains, and what losses go along with them, including redistributive losses or temporary transition costs? And we still have that familiar problem how much we can count on informed and insightful consumers to maximize their own well-being and in the process to produce the efficiency of free markets, and where we must still protect, interfere, and even coerce consumers for their own good. You may have surmised that I am optimistic about the possibilities for consumer education and consumer insight, and then relevant consumer information, as the ultimate protection with maximum efficiency gains.

Have I given too little attention to the exciting consumer issues of the day? What about the air bag controversy, or the costs of medical care, or nuclear energy? What about the regulation of advertising, or the quality of used cars, or itemization of morticians' charges? You may charge me with indolence, or being chicken-hearted, but on issue after issue I find myself trying in vain to sort out the benefits and costs, without finding a convincing answer to the question just where consumers' interests really lie, or being convinced that the proposed reforms would produce a net social gain.

Would the extra costs of air bags be justified, compared with passive but automatic seat and shoulder belts? Is it true that air bags offer no protection in any accidents other than front end collisions? Should we encourage insurance companies to encourage use of seat belts by paying more of the costs if the seat belts were in in use during an accident? Are the costs of unnecessary injuries, which we all share through the insurance premiums we pay, justification for legal compulsion to force us to use seat belts? Probably so.

My background in economic theory in general, and welfare economics in particular, compels me to say that, however much we may resist and resent it, only complex technical analyses can reveal where the consumers' interests lie in most of these issues. In many cases, extended new empirical research may be required. Consumers are not all alike, either as to situations, behavioral responses, or preferences, so we may be adding up differential benefits or costs, and be forced to assume each individual counts as one, or to assign some weights to individuals. Home owners with old low-interest mortgages benefitted at the expense of holders of savings accounts with low interest rates during inflation. Would bankrupting the banks have been better? Technical information of a very complex nature may be involved. The French have a massive program of building fast-breeder reactors for nuclear power. Physicists say they are hundreds of times more efficient than our reactors, and that the fuel is recyclable so that there is little waste to dispose of. And rumor has it that political-military considerations led to prohibition of fast-breeder reactors here--something about the fuel being more easily converted into bombs. Are French consumers of power better off?

Would more competition in lending be more useful than more regulation of rates? Would better disclosure of annualized effective yields in both loans and investments increase competition? Would alert, informed, smart consumers defend themselves better against the new frauds and deceptions that are still to appear? Should we press for government subsidies for product testing as in West Germany, or a tax on advertising to pay for a corrective information flow on the advertised products? Instead of prohibiting advertising of deleterious products like cigarettes, alcohol, or guns, perhaps we should tax the advertising to pay the victims' hospital bills?

I think it is clear that we need a bigger and better Consumers Union to press on all fronts--information, insight, and advocacy. And we need more consumer advocacy, and more private anti-trust activity, and a larger, better informed, more sophisticated consumer movement. But we also need to bring the technical economists and other scientists into the action, however picky they may sometimes seem, to be sure we are doing good well, and not badly. Above all, we need to keep in the forefront of our minds the crucial question: Where is the expected benefit to consumers to come from? If the early cooperative movement produced great gains because there were monopolies, or social restrictions on talented individuals, or gross inefficiencies in retailing, will the cooperatives of the future learn to get around rigid regulations and tax laws that hamper innovation? For example, could a group of older people arrange to provide practical nursing care and other services for one another without running into all kinds of well-meaning regulations and attempts to tax the credits they earned working for their friends or the community?

We also need more research on consumer behavior, insights, and goals in order to know better how they might respond to and benefit from any changes. Can they use the information we might disclose, understand the insights we offer? How do they get their information or insights now? Can they handle economic ideas and insights even if they are presented clearly, or can a small enough minority do so so that their actions will make markets work, to the benefit of all? Some of us have, unsuccessfully, proposed systematic research into these issues, using interviews like Socratic dialogues.

What about action? It would be nice to try some of the things I have mentioned like local consumer information systems, or developing and trying better methods of improving consumer economic insights, but those all take money. The one project that does not cost much, because it involves printing its own paper money, is the creation of a shadow-market for time-exchanges to encourage more mutual help among friends and neighbors.

My main action suggestion, however, is that we plan a series of conferences or seminars or workshops where we bring together the enthusiasm and willingness to work of consumer advocates, the analytical expertise of the economists, and the technical knowledge of the scientists, to provide adequate answers to the question this speech addressed--just what is in the consumers' interest? To end with the good news: Scott Maynes and some co-conspirators have secured funding for the first such conference, which is to be held in August, 1986. He is to be applauded for his energy and persistence.

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HOME EQUITY ALTERNATIVES FOR CONSUMERS

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HOME EQUITY ALTERNATIVES FOR CONSUMERS

For the past decade, efforts have been made to develop methods that would allow house-rich elderly to unlock the equity in their homes to increase their income. One option, of course, is to sell the home and move to a smaller one or rent an apartment. However, for many reasons, a majority of the elderly prefer to remain in their homes. Research by Bryant (2) has indicated that many elderly consider their home to be a major part of their life and in addition want their children to inherit it. Further they attach status to homeownership. Thus, little progress has been made in popularizing programs that would use home equity.

The potential for home equity conversion (HEC) exists since 13.1 million homes are owned by Americans 65 years of age and older; 83 percent of these homes are owned free and clear. It is estimated that they represent a net equity of $700 billion. Of the 13.1 million homes, 37 percent are occupied by single elderly and 33 percent by couples where both members are over 65. Home equity is the major asset for most elderly homeowners except for expected retirement benefits.

This paper will describe home equity conversion plans and the current market situation.

ALTERNATIVE PLANS

The two most common categories of HEC plans are reverse mortgages (RM) and sales/leasebacks. The RM is a rising debt loan--the opposite of a conventional mortgage. The lender makes a stream of payments to the borrower with repayment due at some future date. Usually the loan amount of a RM is not the full market value of the house since the house rather than income is the major guarantee of repayment and it may depreciate. RM payments may be made in a lump sum or monthly or include both a lump sum and monthly payments. Monthly payments may be for a short-fixed term, a long fixed term, as long as the owner remains in the house, as along as the owner lives, or the actuarial life of the owner. Thus the term of the mortgage may be open ended. In any case, the debt is due at the end of the term.

A reverse annuity mortgage (RAM) combines the RM with the purchase of an annuity. The borrower receives income from the annuity and pays the interest on the mortgage. Repayment of the principal is deferred until death, sale of the house, or some specified date. Cash received varies wih the mortgage interest rate, the annuity interest rate, age and sex of the borrower [See Foote (6, p. 8) for various benefit levels possible].

Another version of the RM is the reverse shared appreciation mortgage which is similar to the above except the borrower and lender share in any appreciation of the value of the house. The graduate payment RAM is similar to a graduated payment mortgage but payments to rather than from the borrower begin low and increase over time.

The second major category of HEC is the sales/leaseback in which the owner becomes a renter in the house he owned. The owner has a lifetime interest in the house while the buyer gets a remainder interest which is received at the owner's death. The home is usually purchased at a discounted price. The buyer pays the seller a downpayment and pays the balance in regular monthly installments. The buyer usually buys a deferred annuity for the elderly person so that income will be available even after the mortgage is paid off. This plan is more complicated because of the number of items which must be negotiated. Foote (6, pp. 11-16) examines in detail effects of alternative sales/leaseback plans. Guttentag notes (7, p. 5) that the impact on the Treasury indicates that sales/leasebacks are an expensive way to promote HEC. The per transaction cost to the Treasury is large and the tax subsidy is scaled inversely to need. Analyses of various alternative HEC plans can be found in Jacobs (8), Mikesell (10), and Scholen (12).

CURRENT MARKET PARTICIPANTS

There currently exist a modest number of public and private sector programs that would allow the elderly to convert their home equity to income. I will briefly describe the major ones here. It is important to note that the number is so limited that activity can be followed by anyone interested.

The two plans which receive some public sector support are:

(1) San Francisco Development Fund (SFDF). This program has been in existence since April of 1981. It was developed by four San Francisco Bay Area lenders and is administered by the non-profit San Francisco Development Fund. From 1981 until 1984, they have made about 125 RAMS with a mean monthly payment of $850. Loans are provided

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[1] Economic Development Division
Economic Research Service

to persons 62 + years of age with a maximum income in 1984 of $26,520 for one person and $30,360 for two person households (120 percent of median income). Funding for the first year came from the Federal Home Loan Bank Board of San Francisco, the San Francisco Foundation and the Ford Foundation. In the past year, funding support was received from the Administration on Aging and the SFDF expanded to selected urban areas across the country. They held 12 major information and training meetings.

(2) HELP - Home Equity Living Plan, Inc. of Buffalo, New York. This is one of the older plans in existence. It uses Community Development Block Grant funds for financing. It is a split equity arrangement in which the homeowner receives lifetime tenancy and the city receives the remainder interest in the property. The owner receives a lump sum payment based on house value. The city provides maintenance of the unit. Based on a newspaper report, many of the 60+ Buffalo elderly who have decided to participate in the program did so based on the maintenance feature.

There are three private sector plans that I want to mention:

(1) Century Plan. This plan was developed by American Homestead Corporation, a mortgage bank in New Jersey that is offering reverse mortgages with a guarantee of income to 100. They have made about 225 loans. There is a fixed interest and variable interest component. The loan becomes due when the borrower dies or sells the property. However, the amount owed cannot exceed the value of the home. If this would happen, the company would take a loss. This plan is now being marketed by Prudential-Bache Mortgage Services as an "Individual Retirement Mortgage Account" (IRMA).

(2) Fouratt Plan of California. This is a sales/leaseback program that guarantees the seller the right of lifetime occupancy. In addition the seller gets a lump sum and the remainder is in note form with note payments usually paid monthly. The buyer pays maintenance, property taxes, and insurance. The buyer is required to buy an annuity which will give income to the seller after the note is paid. The buyer gets a discounted price. The heirs receive an option to buy at the time the property is sold. The company receives a four percent commission for arranging the transaction. This plan seems more confusing than most possibly because of the language dealing with the note payments and number of negotiable items.

(3) Grannie Mae - Golden Retirement Annuity Mortgage Association. One of the newest but most well-known programs. It is offerred by Family Backed Mortgage Association (FBMA) which was formed in 1983. It allows home owners age 55 years and older with substantial equity in their homes to sell their homes for cash. FBMA expects the buyer to be the homeowners' children or an investor. The buyer pays the property taxes and insurance on the home. The buyer finances the purchase with a mortgage from a Grannie Mae participating lenders. As an investor, he may deduct depreciation as well as the mortgage interest, taxes, etc. The seller is required to pay loan origination fees, utilities, and may be required to pay a maximum of $1000 toward repairs each year. The seller is expected to purchase a lifetime annuity with the sale proceeds to provide income.

Guttentag stated that Grannie Mae "directs its appeal not to the homeowner so much as to the homeowner's high tax bracket children." (7, p. 3). It provides tax shelter for the children and income for the parents. In fact Grannie Mae suggests buyers should be in the 35 percent or above marginal tax bracket. The National Center for Home Equity Conversion in its October 1984 newsletter reported that Grannie Mae is very costly and has given little assistance on finding a buyer or providing legal guidance.

Finally, I want to mention for the academics in the audience that Stanford University is now offering a RAM program to retired faculty in the Bay Area and the State of California Public Employees Retirement System began offering RMs to annuitants in January of 1985 which the state pension fund will purchase.

THE MARKET PLACE

As noted earlier, the HEC market currently is very small. When compared to the number of standard mortgages made each year or the number of elderly home owners', the HEC mortgage market is minuscular. There are five actors in the HEC marketplace--the homeowner, the investor, the finance system, tax authorities and benefit-related agencies all being influenced by legislation. I want to comment briefly on each of these.

Homeowner

Although the demographic data on the elderly indicate that HEC is viable, in actuality the elderly have not created the demand that might be expected. This may be due to several factors: (1) they may lack information on the plans and their availability, (2) their preferences for an inheritance may be stronger than their demand for income, (3) the options available may not be cost-beneficial for their situation, and (4) the risks associated may be too high. One major risk borrowers face is that the lender may default on the payments. Remedies against default by the lender include insurance per se, a stiff penalty imposed by the regulatory agency overseeing the lender, or minimum financial standards for the lender. Consumer safeguards are described in a later section.

The Lender

Since HEC plans function differently than other mortgages, lenders lack experience in pricing them. The price a lender attaches to a RM or RAM will depend in part on the associated risks.

A major risk for the lender or investor is tenure risk. Life expectancy is a boundary to tenure. Tenure will be influenced by health, ability to maintain the home, ability to remain in the home (availability of food and home care services), and social factors such as marriage, divorce, or death. Without research it is not clear what direction these influences will take, i.e. will they shorten or increase the length of stay in the house. Another risk is liquidity risk. When the lender or owner needs to sell the home, there may not be a market for it. Not only may no market exist, but the value of the home may have declined rather than appreciated. This collateral risk may be influenced by maintenance. Protection against default risk by the borrower include items such as a loan loss reserve, default insurance, and shared appreciation.

Inflation is a risk for both borrowers and sellers. A fixed interest mortgage may be too low and result in a lender loss. One solution to this is an adjustable rate mortgage. However, then there may be a loan balance risk which results from an adjustable interest rate and fixed disbursements. Furthermore, annuity payments based on fixed interest will lose their buying power with inflation.

There are also interaction effects of the risks involved with HEC. For example, if there is little appreciation and the loan balance approaches the value, the homeowner may attempt to stay in the home longer. If interest rates are high or increase, property values will also generally increase mitigating the rising interest rate effect somewhat.

Despite some deregulatory legislation, the finance system is still heavily regulated. Industry structure problems created by regulation have inhibited the offering of RMs. For example: maximum loan to value ratios, terms, and amortization schedules are set by regulation. Reverse annuity mortgages with a rising debt balance may conflict with such regulations. Another example of how regulation complicates HEC is in relation to due-on-sale clauses. Lenders feel due-on-sale-clauses at the time of death are necessary for RMs or RAMs. However these clauses are perceived as a consumer protection for other types of mortgages.

The secondary market plays a major role in residential financing today. Due in part to the limited offering of HEC mortgages, there is no secondary market. This in turn inhibits lenders from offering HEC. The secondary market has also often functioned to create standardized documents which in turn facilitate borrower and lender understanding.

Investors

Investors in HEC plans may be lenders but they may also be individuals. Return on their investment and safety are two prime concerns of most investors. Tax laws as discussed below effect the investor's return. Although financial and legal understanding of the investment would be expected of most investor's, a borrower's children or relatives may find themselves in a situation they do not understand. The uncertainty involved in investing in HEC plans is high relative to the expected return, thus the lack of investor interest is not unexpected.

Tax Issues

Tax issues with regard to HEC complicate the marketplace. There are income implications of HEC plans for owners, investors, and lenders. RM payments are generally not considered taxable income for the borrowers since they are the proceeds of a loan. However, part of RAM annuity payments are income and the IRS has a series of factors based on age and sex of the annuitant that allow one to calculate the proportion of income which is taxable. Tax consequences of a sales/leaseback transaction are more complicated. The IRS has ruled that the over 55 exclusion for capital gain is not allowed if the seller occupies the home rent free. If rent is below-market, the IRS could also disallow the capital gain exclusion. The IRS has avoided making a definitive ruling on the latter. The interest portion of payments received are taxable.

Two further items complicate the situation more. If the home is sold for a below market price, there may be imputed income attributable to the discount which is taxed. This may be taxed as a phantom rent and thus be ordinary income.

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There are tax consequences for the lender but they are not discussed here since the focus of this paper is primarily on the consumer.

Benefit-Related Agencies

Since HEC programs are often seen as a panacea for the problems of the low income elderly, their treatment by means-tested programs is important. Supplemental Security Income (SSI), state Medicaid programs and food stamps all being programs which have specific ways of defining and testing for income and assets. Moon discusses these in detail (11). I merely want to point out that income from HEC may affect benefits received and one fear is that elderly home owners may be forced to use an HEC plan to continue to receive assistance.

Consumer Safeguards

HEC is complicated and often confusing. Because the concept is relatively new, both consumers and lenders lack experience and knowledge. Given the limited availability of home equity plans, the marketplace may not function to eliminate inferior or defective plans. Because of the unique character of HEC and the many assumptions made about the future, care needs to be taken to minimize the potential for failure or fraud in HEC.

The major element for protection of homeowners is disclosure. Special counseling and legal help may be needed to make the best decision. Consumers should obtain the following information for each plan:

1. initial cash payment
2. net monthly payment
3. schedule of payments, term, and when and if payment level will be adjusted
4. interested rate, adjustments to interest possible if any
5. tax status of payments
6. equity status at selected points, including death
7. amount and terms of annuity of any
8. prepayment penalty or other penalties for revoking the agreement
9. property reappraisal rights if mortgage sold
10. a comparison of the annuity rate with the mortgage interest rate.

In split equity and sales/leaseback arragements, care must be taken to assure the seller's right to lifetime tenancy. Sale/leaseback arrangements require more documents that just mortgage arrangements. A sales contract, payment agreement, and lease are all needed. In addition to the information listed above, consumers should find out:

1. the amount of future rent and rent increases
2. responsibility for repairs and maintenance
3. conditions for eviction
4. conditions under which temporary move-outs are permitted
5. conditions under which additional tenants are allowed
6. what happens if the elderly person(s) becomes diminished physically or mentally
7. terms of the sale
8. relation of mortgage payback to potential life expectancy of the seller
9. tax consequences

10. safeguards if the buyer defaults on the mortgage payments.

For reverse equity and deferred payment plans, the following information should also be obtained: loan-to-value ratio, the rights of the lender to escalate payments or change the term of the loan, including specification of conditions under which payment can be required prior to the end of the term.

Financial counseling is recommended for the homeowners and their heirs to make sure that the homeowners' rights are protected and all interested parties understand the situation.

LEGISLATIVE ACTIVITY

Recently, there has been considerable Congressional interest in HEC. Congressional hearings on HEC were first held in 1982 (15). In the last Congress, there were several pieces of legislation introduced, most of which dealt with changes in tax laws, with the major goal being a tax neutral policy for HEC plans as an investment. Congress also directed HUD to study HEC.

In January of this year, the Special Committee on Aging of the Senate held a Congressional Briefing on home equity conversion (16). Legislation is sure to be introduced this session dealing with some of the tax issues involved and possibly with a federal demonstration insurance program.

ALTERNATIVES TO HOME ELDERLY CONVERSION

Elderly homeowners have other options besides home equity conversion, including:

1. short term loans,
2. undermaintenance of the property,
3. operating an accessory apartment within the unit or renting out rooms in the unit, and
4. property tax deferral. Seventeen states offer tax deferral programs: Alaska, California, Colorado, Florida, Georgia, Illinois, Iowa, Kentucky, Maryland, Massachusetts, New Hampshire, Oregon, Tennessee, Texas, Utah, Virginia, Washington. Wisconsin passed such a program but has not funded it. The program features vary among the states but all require the owner to be over 65, have some kind of income limit, and usually charge interest on the taxes deferred.
5. Public sector loan or grant programs may also assist the elderly in staying in their present home. These could include short term loan deferral such as Wisconsin offers or low-interest loans or grants such as new Jersey offers. Often these are a one time loan which allows the elderly person to upgrade the house and is paid back at death or when the house is sold.

CONCLUSION

Housing provides a major asset for many older Americans. Conversion of that asset into income will increase its utility but not its amount. The American Association of Retired Persons has supported HEC to the extent that it allows older persons to maintain control over their assets, their lifestyles, and their place of residence (16). Although most often touted as a way for low income homeowners to improve their cash flow, the Senate Select Committee suggests that HEC may be most benefical for elderly persons age 75 or older with homes of $100,000 or more in areas of high appreciation.

Thus we see some of the anomolies of the issue. We start out expecting HEC to aid low-income then say it will most help high income. We expect there to be a large demand, only to find a small one. We hope it will provide the elderly person with more control but worry that ultimately he/she will be forced out of the house or defrauded.

In conclusion, HEC has been often discussed but whether it will be viable for a large number of elderly is still unclear.

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RECENT EVIDENCE OF THE ELDERLY'S USE OF HOME EQUITY

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ABSTRACT

Home Equity represents a significant share of household assets, and is a major determinant of the composition and amount of total assets held. Recent proposals have focused on alternative ways by which home equity can be used by older consumers. Data from the 1983 Survey of Consumer Finances show that older homeowners hold over 50 percent of assets as home equity, but they are the least likely to use it by using the home as collateral, or refinancing.

INTRODUCTION

Home equity is an important yet, historically, illiquid asset. According to a recent estimate, there is over $3 trillion of net equity tied up in American homes [11]. The use of the asset of home equity is of particular interest because of its relatively large share of household assets, and because of recent changes in legislation and lending practices of institutions which make its use more accessible to homeowners. According to Friedman and Sjogren [4], when assets are divided into liquid, illiquid, and home equity assets, home equity accounted for approximately 70 percent of all assets in 1975.

Home equity is defined as the market value of an owned home less any outstanding mortgage debt. This paper analyzes current measures of the importance(value) of the home equity asset and presents recent evidence on the use of this equity. Much of the analysis focuses on the relationship betweeen home equity and age. This specific interest reflects growing concern that home equity represents a relatively large, though less accessible asset for the older consumers [2, 3, 7]. A majority of the elderly have few financial assets at their disposal due to the illiquid nature of their major asset, home equtiy. In simple terms, the elderly are house rich, but income poor.

Home ownership can make a significant contribution to a household's wealth, and homeowners in general hold greater amounts of assets than renters [7]. Based on 1975 data, total assets of elderly homeowners were 145 times than those of elderly renters. Home equity accounted for 80 percent of this difference [7].

The larger accumulation of assets in the form of home equity for older households is consistent with the accumulation of assets up to retirement postulated by the life cycle hypothesis of consumption [1], as well as the institutional arrangements covering borrowing for home purchases. The typical fixed payment mortgage allows increasing home equity ownership with the repayment of the loan.

The accumulation of assets in a relatively fixed form for older households has stimulated interest in proposals for making home equity assets more liquid [9]. While the evidence is mixed on whether older households do in fact consume out of prior accumulated assets [3, 6, 8], increasing the liquidity of the home equity asset allows the household to make that unconstrained choice.

THE DATA

Data from the 1983 Survey of Consumer Finances, funded by the Federal Reserve Board and several other federal agencies, allow us to examine the contribution of home equity to household wealth, and the willingness of households to use the assets tied up in home equity to increase current consumption. The following analysis is based primarily on this data source. The recent availability of the data is significant because it allows us to examine household behavior after several new opportunities for using home equity had been introduced. It is important to note, however, that the ultimate liquidation of home equity occurs with the sale of the home. That phenomenon is unobserved in our cross-section data.

The analysis was restricted specifically to the 2270 homeowners in the survey sample. Respondents who had liquid and illiquid assets greater than $1,000,000 (3 cases) were dropped due to their large impact on mean values.

HOME EQUITY AND OTHER ASSETS

Approximately 60 percent of the households sampled for the 1983 Survey owned their own homes. Rates of homeownership for the older population are high. Almost 80 percent of those 55 to 64, 80.6 percent of those 65 to 74, and 71.9 percent of those 75 and above owned their homes, while only 60.4 percent of those less than 55 owned homes (Table 1).

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[1] Graduate student and assistant professor, respectively, Department of Textiles and Consumer Economcs. Computer time was supported through the facilities of the Computer Science Center of the University of Maryland.

TABLE 1. Age by Home Ownership.

Variable	Ownership Status Home Owner	Renter
Age	-------Percent-------	
Less than 55	60.4	39.6
55 to 64	79.9	20.1
65 to 74	80.6	19.4
75 and above	71.9	28.1
Total Households	64.4	35.6
(Number)	(2270)	(1254)

Chi-Square=128.99

Of these homeowning familes, 58 percent owed mortgage debt. While mortgage debt tends to be the largest finanical obligation for many, the data show that the majority of the elderly owned their homes free and clear. Of those homeowners 65 years or older, only eight percent had a mortgage. For the younger population, approximately 28 percent of those 55 to 64, and 42 percent of those less than 55 had mortgages. Hence the data are consistent with a gradual accumulation of assets in the form of home equity with age.

As expected, homeownership rates increase with total family income. Table 2 shows that more than 80 percent of those households with incomes above $25,000 owned homes, while only 38 percent of those with incomes less than $10,000 were homeowners.

TABLE 2. Total Income by Home Ownership

Variable	Ownership Status OWN	RENT
Income	----Percent-----	
0 or less	24.7	75.3
$1-4999	38.7	61.3
$5000-9999	38.2	61.8
$10000-14999	51.3	48.7
$15000-24999	59.7	40.3
$25000-49999	80.6	19.4
$50000 and above	87.9	12.1
Total Households	64.4	35.6
(Number)	(2270)	(1254)

Chi-Square=445.56

For the purpose of this analysis, the value of home equity was calculated in the following manner: home equity equals the market value of the house less total mortgage balance outstanding. Mortgage balance outstanding was defined as the percent of the mortgage balance still owed times the amount borrowed for the mortgage. Assuming a 30 year term, the percent of the mortgage balance still owed was calculated as:

$$MBP = \frac{1-1/(1+MINT)^{YRS*12}}{1-1/(1+MINT)^{360}} \qquad (1)$$

where MBP is the percent of mortgage balance still owed; MINT is the monthly interest rate; YRS is the remaining years on the mortgage; and 360 is the assunption of a 30 year mortgage [5]. (The difference in MBP between assuming 20 versus 30 years was statistically small.) The total outstanding mortgage balance was calculated as the sum of the balance on the first and second mortgages.

Table 3 shows values of home equity by age for all households; including those who were not home owners. Those with zero or negative home equity values were not added into the calculations for mean home equity. Mean home equity for those homeowners with positive equity was $45,353 during the survey year. Of those households less than 55 years of age, approximately half are either renters or homeowners with negative home equity amounts. Of these, almost 80 percent (39.6 percent of 50.7 percent) were renters (see Table 3). The elderly households have somewhat less or equal amounts of home equity compared to their younger counterparts for home equity values less than $10,000. Home equity values of $25,000 and above are held predominately by those aged 55 and above. Thirty-eight percent of those 55 to 64 hold housing assets with equity of $50,000 and above, compared with about 30 percent of those 65 to 74 and 20 percent of those 75 and older. Hence we see decreasing home equity ownership among those 75 and above, though those 75 and older hold more equity than those less than 55. Those 55 to 64 hold the most home equity. Using a chi-square test, there is

levels and age.

Since home equity is only one form of household assets, it is important to look at home equity in the context of the household's total asset and net worth portfolio in order

TABLE 3. Value of Home Equity by Age

Value of Home Equity	Respondent's Age Less than 55	55 to 64	65 to 74	75 and above	Total
0 or less	50.7	32.5	35.5	44.1	45.6
$1-4999	2.7	1.5	1.4	1.5	2.3
$5000-9999	3.6	1.7	2.4	1.9	3.1
$10000-14999	3.0	3.0	3.8	4.2	3.2
$15000-24999	7.5	6.6	4.5	7.2	7.0
$25000-49999	16.2	16.6	22.9	20.9	17.4
$50000 & above	16.2	38.0	29.6	20.2	21.3
Total Households (Number)	(2402)	(529)	(423)	(263)	(3617)

Mean Home Equity = $45,353

Chi-Square = 131.4081.

TABLE 4. Average Assets, Debt and Income Data by Age, 1983

	Respondent's Age				
Type of Asset	Less than 55	55 to 64	65 to 74	75 and above	Total Households
		Homeowners			
Liquid	10,059	20,682	28,863	24,441	15,859
Illiquid	30,539	48,787	33,386	9,803	32,612
Subtotal	40,598	69,469	62,249	34,244	48,471
Home Equity	40,733	61,441	49,065	36,324	45,353
Total Assets	81,331	130,910	111,314	70,568	93,824
Debt	8,215	543	39	13	4,973
Net Worth	73,116	130,367	111,275	70,555	88,851
Income	30,125	28,227	16,875	8,442	26,111
Assets/Income[a]	2.69	4.64	6.56	5.75	3.59
Non-Equity Assets/Income[b]	1.35	2.46	3.69	4.06	1.86
Home Equity/Total Assets	.50	.47	.44	.51	.48
		Renters			
Liquid	2,635	12,389	11,982	9,381	4,495
Illiquid	7,095	10,688	13,465	17,916	8,429
Home Equity	0	0	0	0	0
Total Assets	9,700	23,077	25,447	27,297	12,924
Debt	497	598	45	17	448
Net Worth	9,203	22,479	25,402	27,280	12,476
Income	15,641	16,542	8,920	6,416	14,749
Assets/Income[a]	.60	1.40	2.86	3.06	.88

[a] Before tax income for 1982.

to understand its relative importance. Average amounts of assets, by type, and total assets are reported in Table 4 for homeowners and for renters, by age. Renters have no home equity.

Again, average total assets are highest for those 55 to 64, due to both higher home equity and also to higher illiquid assets. Net worth is the measure of total assets less debt. In this case debt is installment debt, and excludes mortgage debt, since morgage debt was included in the value of home equity. Current credit card balances were also excluded since it is difficult to separate the "convenience" aspects of cards from the "debt" usage, especially for older consumers. Again, average net worth is greatest for those 55 to 64 both for owners and renters. Debt is most significant in reducing net worth for those homeowners of ages less than 55. This is consistent with the life cycle hypothesis of consumption and savings.

As opposed to the stock variables of assets and net worth, annual income measures the annual flow of income resources. Average annual income levels are reported as before tax income for 1982. Total assets relative to income allows us to compare wealth holdings relative to current income levels. The most obvious difference is between homeowners and renters, with homeowners having markedly higher asset to income ratios. To a large extent this is due to the fact that total assets held by renters ranged about 14 percent lower (based on total numbers) than homeowners, due to the lack of the housing asset. This is particulary important in light of the tax advantages accruing to homeowners which affect the contribution of before tax income. The highest asset to income ratios are held by those 65 and above. This is consistent with lower annual incomes after retirement, however it also shows the potential dependence on assets as a source of current income.

It is interesting to note the sharp increase in the asset/income ratio for renters over 65 years of age. It suggests that these renters may include recent homeowners who have sold their homes and converted those home equity assets to other forms.

Among homeowners, the home equity asset represents an important contribution to total assets. For homeowners, the housing asset accounts for 48 percent of total assets. For those homeowners aged 75 and above, home equity represents over 50 percent of total assets. This group represents eight percent of all homeowners and is the target of much of the concern about illiquid housing assets.

EVIDENCE OF HOME EQUITY USE

The housing asset, then, represents a significant asset to homeowning households. It potentially can be used to fund current consumption without the sale of the home through a number of mechanisms, such as taking out a second mortgage or another loan using the home as collateral. However, the possibility of its use is especially important for those homeowners over 75 years of age. Their home equity assets account for 51 percent of total assets. The following analysis of home equity use focuses on the 2270 homeowners in the sample.

"Home equity use" is defined as taking a loan that uses the home as collateral. Hence, this does not include the current use for housing services (i.e., imputed rental values). The definition includes specific options for releasing the equity for current consumption, while maintaining occupancy. It does not include options for converting home equity to other forms which include the direct sale of the home. In an effort to broaden this definition, for the following analysis "home equity use" includes: taking out a first or second mortgage to fund consumption purposes; taking a loan which uses the home as collateral and refinancing an existing mortgage. The alternative uses were broken down into two subsets: those of taking out a mortgage for current consumption or a line of credit which used the home as collateral; and those involving any refinancing of the mortgages. Alternative 1 refers to the first subset, and alternative 2 refers to a combination of the two subsets. Refinancing was included in the second as an option since it involves the renegotiating of the terms of the original obligation and the opportunity to gain use of equity assets.

Based on using the home as collateral on a line of credit and use of the first and/or second mortgage for consumption (Alternative 1), only 2.6 percent of all households were users of the equity, as shown in Table 5a. Persons under age 64 were more likely to use their home equity than those age 65 or older. The option of home equity conversion is still a new tool and not offered in all areas, which may account for its lack of popularity overall. The chi-square test is significant at the .05 level.

TABLE 5a. Home Equity Use Among Age Groups
Alternative 1: No Refinancing

Respondent's Age	Home Equity Users"	"Non-Users"	Total Number
	------percent------		number
Less than 55	3.4	96.6	1344
55 to 64	2.2	97.8	411
65-74	.3	99.7	332
75 and above	1.7	98.3	181
All Households	2.6	97.4	100.0%
(Number)	(59)	(2211)	(2270)

Chi-Square = 11.48.

When we include refinancing the mortgage within our definition of home equity use (Alternative 2), we find a larger percent of users, as shown on Table 5b. Over 10 percent of homeowners used equity. Again, the use is most popular with those youngest (14 percent) and declines with age to 1.7 percent of those 75 and older. The chi-square test is significant at the .01 level.

TABLE 5b. Home Equity Use Among Age Groups
Alternative 2: Includes Refinancing

Respondent's Age	Home Equity Users"	"Non-Users"	Total Number
	------percent------		number
Less than 55	14.4	85.6	1344
55 to 64	9.0	91.0	411
65-74	3.0	97.0	332
75 and above	1.7	98.3	181
All Households	10.7	89.3	100.0%
(Number)	(243)	(2027)	(2270)

Chi-Square = 56.32.

Differences is use are not significant when associated with income using Alternative 1, but are significant under Alternative 2, as shown in Tables 6a and 6b. Higher income households are more likely to use refinancing as a method of using home equity. Those households with incomes larger than $25,000 were most likely to use home equity under both definitions of home equity use.

TABLE 6a. Total Income by Home Equity Use
Alternative 1: No Refinancing

Household Income	Home Equity "Users"	"Non-Users"	Total Number
	------percent------		number
0 or loss	2.2	97.8	417
$1-4999	2.0	98.0	106
$5000-9999	2.0	98.0	165
$10000-14999	2.4	97.6	210
$15000-24999	2.2	97.8	411
$25000-49999	3.5	96.5	706
$50000 and above	2.4	97.6	255
All Households	2.6	97.4	100.0%
(Number)	(59)	(2211)	(2270)

Chi-Square = 5.43

TABLE 6b. Total Income by Home Equity Use
Alternative 2: Includes Refinancing

Household Income	Home Equity "Users"	"Non-Users"	Total Number
0 or loss	6.7	93.3	417
$1-4999	6.6	93.4	106
$5000-9999	4.3	95.7	165
$10000-14999	5.2	94.8	210
$15000-24999	11.0	89.0	411
$25000-49999	15.7	84.3	706
$50000 and above	13.3	86.7	255
All Households	10.7	89.3	100.0%
(Number)	(243)	(2027)	(2270)

Users of home equity would be expected to have either relatively low or high amounts of home equity. Those with little equity have borrowed against the equity and reduced the net value of the equity. Those with high levels of home equity may be users because they have access to large amounts of equity. In fact, when looking at use under Alternative 1 by levels of home equity, there was no significance in association (Table 7a). Under Alternative 2 which includes refinancing, the pattern of use (high-low- high) is visible and significant at the .10 level.

TABLE 7a. Value of Home Equity by Home Equity Use
Alternative 1: No Refinancing

Household Income	Home Equity "Users"	"Non-Users"	Total Number
	------percent------		number
0 or loss	4.2	95.8	307
$1-4999	4.8	95.2	84
$5000-9999	.9	99.1	111
$10000-14999	3.5	96.5	114
$15000-24999	2.4	97.6	254
$25000-49999	2.4	97.6	630
$50000 and above	2.1	97.9	769
All Households	2.6	97.4	100.0%
(Number)	(59)	(2211)	(2270)

Chi-Square = 7.4507

TABLE 7b. Value of Home Equity by Home Equity Use
Alternative 2: Includes Refinancing

Household Income	Home Equity "Users"	"Non-Users"	Total Number
	------percent------		number
0 or loss	10.7	89.3	307
$1-4999	11.9	88.1	84
$5000-9999	9.0	91.0	111
$10000-14999	7.0	93.0	114
$15000-24999	13.0	87.0	254
$25000-49999	10.8	89.2	630
$50000 and above	10.4	89.6	769
All Households	10.7	89.3	100.0%
(Number)	(243)	(2027)	(2270)

Chi-Square = 11.8928

CONCLUSIONS

In summary, home equity has a marked contribution to household assets. Currently, the most significant use of home equity comes with refinancing. Reliance on the home equity asset for those 75 years of age and older is high for homeowners (home equity to total asset ratio is 51 percent.) These respondents have not fully converted since they are presently still homeowners and not renters. There is some evidence of increase asset holding of renters over 75, which could come from assets released by the sale of their home.

Use of home equity is still relatively new and not yet widespread. Users, like other innovators, are young (less than 65) with higher incomes. While many home equity conversion programs are targeted at the elderly homeowners, they are not currently the users of this asset.

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FACTORS AFFECTING THE PROBABILITY OF ACCEPTING A RETIREMENT INCENTIVE: EVIDENCE TO SUPPORT RETIREMENT PLANNING EDUCATION

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ABSTRACT

In 1983, members of the New York State Employees Retirement System were offered a 3 year service credit in an early retirement incentive program (RIP). This study of persons eligible for the RIP revealed that projected retirement and non-retirement income, net worth, health, sex, race, and years of service were significant factors in accepting the incentive. The importance of the projected income variables implies a need for consumer educators to help people form realistic expectations about income needs and to help them acquire accurate information on retirement benefits.

While retirement as a policy issue has gained increased attention from both researchers and policy makers, there is still much that remains unknown about the retirement decision process and retirement behaviors. The rising proportion of persons 65 and over (9.8% in 1969, 11.7% in 1983, projected 18% in 2030) is one source of concern. Further exacerbating this demographic problem is the continuing decline in the labor force participation rates for men. From 1960 to 1984 the labor force participation rate for men 55 to 64 dropped from 87% to 69%. The rate for men 65 and over dropped from 34% to 16.4% over the same period [18].

Coupled with these trends is the increase in longevity experienced by today's population. In 1900, average life expectancy was 48 years for men and 51 years for women. In the 1980's, life expectancy is 70 for men and 78 for women. Today's 65 year old man can expect to live an additional 14 years while a 65 year old woman can expect to live another 18.7 years [14].

Further compounding the demographic/labor force participation/longevity trends in retirement is the growing number of employer provided early retirement incentives. The economic environment faced by many firms during the recession of 1981-83 forced many employers to reduce payrolls. In an effort to minimize lay-offs and firings, some firms offered early retirement incentives to eligible employees. Hewitt Associates, a Chicago based consulting firm, estimated over 100 large manufacturers (e.g., Xerox, DuPont, Kodak, 3M) have offered such early retirement incentives. Public sector employers, such as New York State, have also offered early retirement incentives to pare budgets and reduce deficits. People choosing these incentives face much longer retirement periods than retirees in previous cohorts, placing strains on public and private funds for supporting retirees. Indeed, since many pensions are fixed at the time of retirement, retirees may find themselves in dire financial conditions 10 or 15 years after retirement.

Persons concerned with the social and financial effects of early retirement on retirees need information on likely acceptors of an incentive program in order to target educational efforts on planning for and managing in retirement. Employers want information on the kinds and amounts of incentives necessary to induce retirement and reduce employment. Policy makers need to be supplied with information on the effects of retirement incentive programs in order to determine appropriate and feasible policies with respect to retirement incentives and retirement income programs. This study was undertaken to address some of these needs by identifying factors affecting the acceptance of retirement incentives.

PREVIOUS WORK

Early retirement incentives have been studied as they exist within given retirement programs. That is, if a given retirement system allowed "early" retirement (i.e., before age 62 or 65), the system was deemed to have an incentive for early retirement [1, 2, 13, 16]. Studies done by the Urban Institute have found that "workers do respond to incentives in pension plan structure in their choice of whether to retire or continue working" [13, p. 2]. However, little has been done to study the effect on retirement behavior of additional incentives (e.g., additional service credit, lump sum bonus) offered for a limited time.

It is probable that factors which have been found to be determinants of retirement are also likely to affect acceptance of a retirement incentive. Factors which have been found to have significant relationships with retirement include financial and demographic characteristics, the ability to work (e.g., health, occupation, unemployment rates), and attitudinal characteristics [1, 4, 6, 7, 11, 13, 15, 16, 17].

Standard labor market theory posits that an individual maximizes utility subject to given constraints. Life cycle theory suggests that this maximization takes place across the life cycle. However, studies using life expectancy have yielded different conclusions about the reality of people's expectations. Davies suggested that uncertainty about lifetime explained a lower-than-predicted rate of dissavings during retirement (i.e., people were projecting a long lifetime) [5]. Hamermesh, on the other hand, indicated that uncertainty about life expectancy had little effect on consumption during retirement; "increased longevity has not been met with spending cuts to enable people to maintain real consumption over a longer lifetime" (i.e., people were unrealistically projecting a short lifetime) [10, p. 7].

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Using a lifecycle framework, households may consider the present values of earnings and retirement pensions, along with asset income to estimate the utility of working another year versus retiring. Thus, at some optimal retirement age, the utility gained from working one more year is less than or equal to the utility lost from postponing retirement [see 7 for the development of a theoretical model].

If we assume that an individual is already behaving in some way that maximizes utility, the availability of a retirement incentive may change the situation. The previous maximum may no longer represent a lifelong (long run) maximum. Individuals must re-evaluate their long run utility maximization and make necessary changes.

MODEL AND VARIABLES

The probability of accepting the early retirement incentive is based on the probability that long run maximum utility is greater with the incentive than without it:

$$\text{Prob (accept retirement incentive)} = \text{Prob}\left(\text{Max } U_{R_i} \geq \text{Max } U_{R_o}\right) \qquad (1)$$

where:

Max U_{R_i} = maximum utility with retirement incentive

Max U_{R_o} = maximum utility without retirement incentive

As developed in previous studies, these maximum utility points are a function of financial resources, income needs, ability to work, tastes, preferences, and expectations. Thus, the probability of accepting a retirement incentive can be given as:

Prob (accept retirement incentive) = f(financial resources, income needs, ability to work, tastes, preferences, life expectancy) (2)

Maximum likelihood techniques were used to estimate a probit model:

$$R = F(Y_i, A_i, W_i, Z_i, \beta_i) + \epsilon_i \qquad (3)$$

where R = whether or not worker has accepted early retirement incentive

Y = vector of variables which measure financial resources

A = vector of variables which measure income needs

W = vector of variables which measure ability to work

Z = vector of variables which measure tastes, preferences and expectations

β = vector of probit coefficients

ϵ = error term

To operationalize this model, data on these variables were collected from employees offered a retirement incentive program. Financial resource measures used were after tax earnings from wages and salary of the incentive-eligible person in 1982, projected family income from non-retirement sources from fall 1983 to fall 1984 (family earnings, farm or business income), projected income from "retirement" sources (family pensions and family Social Security), net worth, and home ownership. Net worth was measured by summing money in savings and checking accounts; value of stocks, bonds, and mutual funds; value of other financial assets; market value of home; and market value of other property. Outstanding mortgages and other reported debts were then subtracted to arrive at a net worth measure. A dummy variable was used to measure home ownership (1=owner).

Measures of income needs were marital status (1=married) and family size.

Measures of ability to work included health, years of education, local unemployment rate, area of residence, sex, race, number of years employed, and number of years in the pension system. Health was measured both subjectively and objectively. The subjective measure was a 0-1 dummy for people reporting excellent or good health (1) versus fair or poor health (0). The objective measure was the actual number of days out of work in the past year due to illness or hospitalization. Education was measured as number of years of schooling completed. Unemployment rate was the unemployment rate reported by the New York State Department of Labor for the respondent's county of residence for April 1983 (i.e., the rate at the time the decision to accept or not was being made). Area of residence and race were dummy variables, coded 1 for urban and white, respectively, and "-1" for rural-farm and black. Sex was also a dummy variable (1=female).

Tastes, preferences, and expectations were measured by age and by comparison to average life expectancy. Persons were given the average life expectancies by sex for their current age group and asked about expectations of reaching this average. Those expecting to live longer than average were assigned a value of 1 and those expecting to live less than average were assigned a value of -1; others were assigned zeroes.

Sample

In 1983, as part of a budget cutting measure, the New York State Assembly and Senate passed legislation enabling the New York State Employees Retirement System (NYSERS) to offer a retirement incentive program (RIP). The incentive provided an additional 3 year service credit to vested state employees who were 55 and over, provided they apply for retirement between March 1 and May 2 and retire by May 31, 1983. In all, 26,566 members of NYSERS were eligible for the incentive; 8060 accepted the incentive.

In order to assure a sample size suitable for studying variables of interest and for model development, a sample of 4000 of the 26,566 was drawn. The sample consisted of 1500 retirees and 2500 persons who were eligible for RIP but who did not take the incentive. The 38-62 split was made to approximate what was, at the time, the anticipated acceptance rate among persons eligible for the RIP.

Sampling was done by NYSERS staff on the basis of a person's NYSERS registration number. Numbers were arranged in ascending order for both eligible workers and RIP retirees. Every 5th RIP retiree was selected until 1500 names were drawn and every 6th eligible worker was selected until 2500 names were drawn. From these lists, NYSERS generated mailing labels for the questionnaire and for a follow-up postcard. Questionnaires were mailed out in September, 1983.

Eighteen respondents indicated they were not eligible for the RIP. These included judges and persons not yet vested in the system. This reduced the 4000 initial sample to 3982. In all, 1707 responses were received, for a return rate of 42.8 percent. Of these, 1627 provided sufficient data to be usable. (A more detailed description of the sample and comparison to the population of all RIP eligible persons can be found in a working paper by this author). SAS probit procedure was used.

The first model was developed based on complete or "clean" data--the SAS procedure selected cases with complete information for model development (N=545). Because of substantial amounts of missing information, an additional model was developed using an instrumental variable for missing income data. Civil service grade was regressed on 1982 income for those cases reporting income. The resulting regression equation was then applied to those cases not reporting 1982 income and the estimated value was then used in the probit estimate. This procedure netted an additional 13 cases (N=558).

RESULTS

Means of continuous variables and proportions of categorical variables are presented in Table 1. Results from the probit estimations are presented in Table 2. In both models, projected non-retirement income, sex and race had significant (at .90 or better) and negative effects on the estimated probit index. Projected retirement income, net worth, days out due to illness and number of years membership in NYSERS had significant (at .90 or better) and positive effects on the probit index.

Table 1

Means of Model Variables

Variable	Retirees	Non-Retirees	All
Income, 1982	$18,790	$18,833	$18,819
Projected Non Retirement Income	8,214	26,750	20,628
Projected Retirement Income	17,548	1,617	6,879
Net Worth	114,947	87,038	96,255
Housing Status (% owner)	.86	.86	.86
Marital Status (% married)	.67	.73	.71
Family size	2.02	2.39	2.27
Health Status (% good-excellent)	.72	.83	.79
Days out	9.05	7.10	7.74
Education	13.41	13.23	13.29
Unemployment Rate	9.45	9.08	9.20
Residence (% urban)	.50	.48	.49
Sex (% female)	.37	.39	.38
Race (% white)	.91	.83	.86
Years Employed	36.83	33.26	34.45
Years Member NYSERS	23.17	19.39	20.64
Age	61.83	58.86	59.84
Life expectancy (% average)	.54	.58	.56
N	180	365	545

Table 2
Probit Coefficients
(*t* values in parens)

Variable	"Clean" model	Instrumental Variable Model
Income '82 (1000's)	-.0066 (.269)	-.0062 (.256)
Projected Nonretirement Income (1000's)	-.1128 (7.309)	-.1111 (7.346)
Projected Retirement Income (1000's)	.1645 (9.482)	.1636 (9.604)
Net worth (1000's)	.0046 (6.911)	.0046 (6.886)
Housing status	.1824 (.563)	.1894 (.603)
Marital status	-.2374 (.84)	-.2014 (.730)
Family size	-.1122 (.815)	-.1216 (.901)
Health status	-.1922 (.657)	-.1686 (.583)
Days out	.0103 (1.783)	.0103 (1.813)
Education	-.0599 (1.196)	-.0575 (1.160)
Unemployment rate	.0115 (.254)	.0267 (.611)
Residence	.0447 (.238)	.0138 (.075)
Sex	-.5071 (1.789)	-.4364 (1.564)
Race	-.3716 (1.814)	-.3720 (1.821)
Years Employed	-.0103 (.682)	-.0111 (.758)
Years Member	.0428 (2.465)	.0394 (2.345)
Age	.0309 (.808)	.0379 (1.006)
Life expectancy	.0166 (.089)	.0115 (.063)
Constant	-.9316	-1.4801
N	545	558
Loglikelihood	518.881	529.011
Index	.94925	-.92845
Prob (accept)	.254	.259

These results are as expected. Holding all else constant, persons with higher projected earnings were more likely to continue working (versus accepting early retirement), while persons with higher projected retirement incomes and higher net worth (therefore more assets to fall back on) were more likely to accept an incentive. Persons who missed work due to illness were more likely to accept the incentive, as were people who had more years of membership in the retirement system.

All other things being equal, women were less likely than men to accept the retirement incentive. Whites were less likely than blacks and others to accept the incentive.

The probit index for the models was evaluated at the mean values of the variables to estimate the probability of accepting the retirement incentive:

$$P\ (\text{accept}) = \frac{1}{\sqrt{2\pi}}\, e^{-(\frac{I^2}{2})}$$

where I = probit index

The actual acceptance rate of the total population was .303 (30.3% of the 26566 accepted the incentive). The acceptance rate of the total sample was .406. For the "clean" model, I was equal to -.9492 and the estimated probability of accepting was .254. For the instrumental variable model, I was equal to -.9284 and the probability of accepting was .259.

The marginal effects of each variable were then estimated by multiplying the probability by the probit coefficients (see Table 3). The largest potential effects were found in sex and race variables, followed by projected retirement income. Being female lowered the probit index by approximately .5 and reduced the probability of accepting by .12, holding all else constant. In a simple bivariate comparison of sex and acceptance of the incentive, 43% of women accepted the incentive compared to 38% of men (Chi square significant at .95). The negative probit coefficient on the sex variable may reflect the effects of lower levels of financial resources which women in the sample had.

Being white reduced the probability of accepting by .09, but being black increased the probability of accepting by .09.

An additional $1000 in projected nonretirement income (e.g. earnings) decreased the probability of accepting by nearly .03. An additional $1000 in projected retirement income (pension, Social Security) increased the probability of accepting by .04.

Other variables produced significant but very small effects. An additional $1000 in net worth increased the probability of accepting by .001. An additional day out due to illness increased the probability of accepting by .002.

Table 3
Marginal Effects on Probability of Accepting

Variable (X_i)	Clean Model	Instrumental Variable Model
Income '82 (1000's)	-.0016	-.0016
Projected Nonretirement Income (1000's)	-.0286*	-.0287*
Projected Retirement Income (1000's)	.0417*	.0423*
Net Worth (1000's)	.0011*	.0012*
Housing Status	.0463	.0490
Marital Status	-.0602	-.0521
Family size	-.0284	-.0314
Health status	-.0488	-.0436
Days out	.0026*	.0026*
Education	-.0152	-.0148
Unemployment rate	.0029	.0069
Residence	.0113	.0035
Sex	-.1288*	-.1130*
Race	-.0943*	-.0963*
Years Employed	-.0026	-.0028
Years Member	.0108*	.0102*
Age	.0078	.0098
Life Expectancy	.0042	.0029

$\frac{\partial P}{\partial X_i} = P \cdot \beta_i$ where P = probability of accepting
β_i = probit coefficient

* coefficients significant at .90 or better

DISCUSSION AND IMPLICATIONS

Financial resources and ability to work significantly affected the probability of accepting the NYSERS early retirement incentive. These findings support the work done by others on factors affecting the timing of retirement [for example 7, 11, 12, 15, 16, 17].

There is likely to be some confounding in the "years member of NYSERS" variable. The pension benefit formula changes once a worker has 20 years of service. Thus the 3 year service credit provided an uneven pattern of benefits. NYSERS estimated that workers with up to 16 years of experience would gain about $50 per $1000 of final average salary in pension benefits (e.g. if final average salary was $10,000 with 15 years of service, the annual pension would be $2490 without the incentive and $2998 with the incentive, an increase of about $500). Similarly, persons with 20 years or more would gain about $60 per $1000 of final average salary. However, the 3 year incentive placed workers with 17, 18 or 19 years of service over the inflection point in the formula. These workers could gain as much as $123 per $1000 of final average salary. Additional work with this data set is needed to determine the effects of being in one of the various years of membership categories on the probability of accepting the incentive. It is likely that the marginal effects of being in the 17 to 19 year category are greater than other categories.

The use of this model is limited by the substantial amount of missing financial data; only 545 out of 1627 cases could be used in model development. The instrumental variable approach to project 1982 income netted an additional 13 cases and did not substantially change the results. There was a wide range of income, projected income, and net worth reported, however, the non-reporters of financial data tended to have lower civil service grade jobs and they were more likely to be minority and female (see Table 1A in the appendix for a comparison of mean values of selected variables for reporters and non reporters). These characteristics usually are linked with lower income and lower levels of assets. Thus, the financial data used in this model may have an upward bias.

The marginal effects of individual variables on the probability of accepting the retirement incentive are relatively small, indicating that relatively large changes are needed to induce a change in retirement plans. This finding is consistent with some of the work done by Fields and Mitchell (1982). These relatively small effects imply that policy decisions (either public policies affecting Social Security or private pension policies) may have somewhat limited affects on keeping older workers in the labor force or providing incentives for retirement before workers are "ready."

Although the model assumes that people behave as if they are maximizing, they may not be making decisions with full and accurate information (an inherent assumption of maximization). It is clear in this model that accurate information regarding future salary/wage increases and the level of retirement benefits (pensions, Social Security) is important in the retirement decision. Yet it is unlikely that many of these persons had accurate information on which to base their decisions--only 86 percent of retirees and 50 percent of workers had received estimates of pension benefits from NYSERS. And people may not have realistic expectations regarding the continued purchasing power of these benefits. Fox found that the real value of non-Social Security pensions declined about 20 percent 4 years after retirement [9]. Clearly, people need to factor such information into their retirement decisions.

These results could be used by educators and personnel officers to identify persons likely to accept a retirement incentive when offered and to help these targeted persons do some financial planning to help them make better informed decisions. By helping people more accurately estimate future earnings and future pension benefits as well as future income needs, people may be able to improve their decision making regarding acceptance of an early retirement incentive, thus improving their future financial security.

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Appendix
Table 1A
Selected Means of Non-reporters and Reporters of Financial Information

Variable	Non-Reporter	Reporter
Civil service grade-worker	12.10	15.24
Civil service grade-retiree	11.59	14.62
Housing status	.72	.86
Marital status	.62	.71
Residence	.56	.49
Race	.70	.87
Life Expectancy	.03	.02
Years Employed	34.20	34.39
Years Member NYSERS	19.11	20.65
Days Out	9.77	7.80
Age	60.46	59.83
Education	12.55	13.3
Sex	.55	.38
Family size	2.15	2.27
N	992	538

HOME BASED WORK = HOME ECONOMICS

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ABSTRACT

By the end of the next decade, 15 to 20 percent of the American work force are expected to be working from their homes. Technological, economic, environmental and personal factors will all contribute to this change. The growth in home-based work provides new opportunities for family/consumer/home economics research and extension. Discussion of this shift in the work force and the opportunities for research and extension programs is the focus of this paper.

Rapid changes in technological, societal and economic forces are bringing many traditional job options into question and encouraging the growth of new capital and labor markets. Currently, one of the fastest growing sectors of the economy is home-based work. Recent estimates regarding the number of people who currently base their market production at home range from 10 to 23 million (1, 5). Furthermore, projections indicate that 15 to 20 percent of American workers will be working from their homes by the end of the decade (5, p. 2). The focus of this paper is to discuss the implications of this shift toward home-based work for family/consumer/home economics extension and research. The socio-economic environment fostering the market shift towards home-based work, and the types of work conducive to a home setting will also be discussed.

Alvin Toffler (6, p. 59), among others (1, 3), has suggested that a future movement, as important as the industrial revolution (which moved the workplace from the home (agriculture) to the factory), is gaining momentum. The movement is the growth in home-based production leading, again, to a home-based society. Several forces exist which can be identified as leading industrial societies in this direction.

First, the primary catalysts for this trend are both technological and economic in nature. The nature of the work force is changing; workers are becoming increasingly responsible for processing information rather than things. Work stations are being established at home for data processing, computer programming, and other related tasks that are easily done in private. Estimates are that 35 to 50 percent of the work force in advanced industries, such as electronics and pharmaceuticals, could perform their production at home if production was so organized (6, p. 60).

Results of a National Science Foundation study showed that the higher an employee is on the managerial scale, on average, the further they commute to work. Commuting has both monetary and time costs which are directly borne by the employee. However, in order for the employee to be willing to incur such costs the employer must offer higher wages, the costs of which are then passed on to their customers. Added to these expenses are the costs of downtown parking and other services necessitated by a centralized workplace. If work stations were dispersed, the savings to employers could be substantial and either lower prices or higher profits would result. Certainly the latter will motivate employers to study dispersed work stations as an alternative institutional organization (6, p. 61).

Second, environmental concerns will directly encourage home-based work. A reduction in the consumption of fossil fuels with its complementary reduction in air pollution will foster societal pressures for the change. This is in addition to reductions in stress related illnesses stemming from long, often arduous commuting times and pressures related to urban congestion.

Third, family and personal life concerns will promote a move toward home-based work. Working from the home, in some cases, provides a means for combining market work with traditional home production (e.g., child care, laundry services, meal preparation, etc.). In addition, work shared between family members, where appropriate, can promote family unity. Certainly, in the midst of the crisis being experienced by the American family such an outcome is invaluable (6, pp. 61-63).

Up to this point, it has been inferred that home-based work may be classified into two general categories: 1) work that is transferred from the traditional work station to the home, and 2) work that develops from home production or personal interests (i.e., self-employment).

Home businesses in the first category often evolve around computer-related tasks such as data or word processing. Telecommuting, the act of computer assisted work from home, opens up a myriad of tasks that may be done from the home. However, many traditional occupations such as salespersons, consultants, counselors, and designers are also amenable to the home work station organization. The future of employees performing employment responsibilities from the home has much potential (6, p. 61).

The second category, the category most directly related to home economics, involves application of skills such as financial management, food preparation (e.g., preservation, catering), day care for children and the elderly, clothing manufacture or repair, furniture restoration, and housekeeping, just to name a few (4, p. 6). In fact, the number of jobs able to be performed from the home is limited only by the imagination and marketing skills of the home entrepreneur. An example of imaginative entrepreneurship is the case of two women who, using developed human capital skills in sewing, capitalized on the cabbage patch doll boom. By identifying a need in the marketplace, they began to produce and market clothing for the inanimate "family members."

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Unfortunately, had the women decided to produce clothing for the dolls' "mothers" (i.e., children) they may have been put out of business by the government. Legislation passed in 1940, enforced by the Department of Labor with the encouragement of labor unions and some manufacturers, prohibits manufacturing of some retail goods in the home. Originally designed as a means to shut down sweatshops and to strengthen wage and hour standards, the law is embroiled in a renewed controversy. While the elimination of the law would open the way for all forms of home-based business, it would also allow the economic exploitation of some workers. Research in this area aimed at policy formation which protects both the rights of workers and the freedom of choice of production is certainly mandated (2, pp. 6-7).

Outside of the above, what does the growth in home-based businesses mean with respect to extension and research? Regardless of whether a person is telecommuting or catering from their home, working at home necessitates family member cooperation. Thus the impact of home-based work on family patterns and lifestyles must be considered. Furthermore, decision making, goal setting and time management skills are essential in helping individuals successfully combine family and business.

For the farm family in financial stress, home-based work can provide a source of secondary income or, if displaced from farming, a primary income which allows the family to remain with the rural community. The farm operation is a home-based business. A diversification of the business would not only reduce financial risk but would preserve the lifestyle of the farm family. Here, family economics and farm finance extension specialists will be able to help families understand such things as tax incentives and insurance needs peculiar to home-based workers.

Extension personnel can help organize cooperatives or trade groups for networking. In many cases extension programming may be developed, in cooperation with others, to address issues such as the marketing of home produced goods.

The home-based business movement also provides numerous research opportunities for the family/consumer economist. Household production theory and the theory of the labor managed firm can both be used as theoretical frameworks for studying the home producer. In fact, home-based production takes home production one step further, in that, instead of producing a good for direct household consumption, the good is also produced to be sold for income. The trade-offs in household activities and substitutability between activities deserves research. The ideas of joint production and time allocation will take on new meaning as such production increases.

The estimation of earnings functions, from the human capital literature, for the self-employed is necessitated. Also, the effects of tax incentives on family behavior could be studied. Moreover, the valuable contributions made by homemakers in traditional home production would be increasingly recognized as the opportunity cost of not doing home-based work for profit becomes more explicit. The not easily measured potential benefits of improved self-esteem, family cooperation and reduced financial/emotional stress also need to be considered.

In summary, the growth in home-based businesses provides new opportunities for home economics extension and research. The remarkable growth in the number of home-based businesses which can be expected in the next decade is opening new arenas for study. This shift is occurring as a result of technological, economic, environmental and personal factors and should, therefore, be expected to be dramatic. In the short run, the greatest growth may be for electronic cottages, although home-based work developing from home production and personal interests is also expanding. The people who choose to work at home will need information and education regarding time, family, energy, and financial management. The strengths of home economics research and extension speak to these opportunities which are not only exciting but are potentially very rewarding.

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WIFE'S LABOR FORCE PARTICIPATION AND FAMILY HOUSING EXPENDITURE

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ABSTRACT

The major focus of this research was the relationship between wife's labor force participation and expenditure on housing. Multiple regression analysis of data from the 1982 wave of the Panel Study of Income Dynamics[3] found a negative association between the number of hours a wife worked for pay and expenditure on housing. Family income and wife's education were found to have a substantial positive effect on expenditure. Black families were found to allocate less to housing than did White families. Income, education, and race were much more influential in explaining expenditure than was wife's labor force participation.

INTRODUCTION

Housing outlays have traditionally been a major part of the family budget. The proportion of family income spent on housing has grown in recent years [2] because of increases in utility payments, property taxes, and other shelter-related items. Many families may be unable to reduce spending on other budget items enough to offset increased housing costs and may find it difficult to purchase their first home or to maintain an existing home. This is borne out by the fact that the rate of homeownership declined between 1977 and 1983 [1]. Although having two incomes now seems to be a prerequisite for homeownership, the influence of working-wife families on future housing demand is unclear. This is because a family's decision to allocate its income to housing or other consumption expenditure is determined by tastes and preferences as well as ability to pay. Even if a working-wife family has an income high enough to qualify for homeownership, it might prefer to rent its dwelling. The job-related expenditures of two earners might also lower a working-wife family's ability to afford a home (or make rent payments) relative to a comparable family in which the husband is the only earner.

Existing research does little to clarify the relationship between a wife's employment and expenditure on housing. An early study by Duker [4] used data from the 1950 Survey of Consumer Expenditures and the 1959 Survey of Consumer Finances.

When classifying families in both samples according to annual after-tax income, working-wife families were found to have a lower incidence of homeownership and to allocate a lower proportion of income to rent or to homeownership that did nonworking wife families. Multiple regression analysis, however, uncovered no relationship between a wife's employment and housing expenditure; assets other than the family's home, husband's education, and husband's occupation were significant factors. Using data from the 1971 Panel Study of Income Dynamics, Hanna [5] also found that working-wife families had a lower incidence of homeownership and allocated a lower proportion of income to housing that did nonworking-wife families. Even after controlling for the effects of income and other factors, a wife's employment was found to exert a negative influence on housing expenditure. The time which has elapsed since the data used in the studies were collected limits their relevance today since the labor force participation of married women has substantially increased and housing costs have skyrocketed. Another limitation is that, at the time of both studies, most lending institutions systematically discounted all or part of a wife's earning when determining a family's ability to make mortgage payments. Because this practice was forbidden by law in 1973, changes in lending institution practices might have affected the incidence of homeownership among working-wife families and, thus, the amount of income allocated to housing. The major objective of this study is to examine the current relationship between wife's labor force participation and expenditure on housing.

METHODOLOGY

Data for this study were obtained from the 1982 wave of the Panel Study of Income Dynamics (PSID)[4] collected by the Institute for Social Research at the University of Michigan. The study sample consisted of husband-wife families in which the wife was less than 65 years old and in which neither spouse was retired. Excluded from the sample were families receiving free rent and families residing on farms. Families not reporting information on income and other sociodemographic characteristics of interest were also excluded. These adjustments resulted in a study sample of 2,667 families.

Multiple regression analysis was used to examine the influence of wife's labor force participation and other factors on housing expenditure in 1981. The dependent variable was the total of utility and rent or mortgage payments made plus any property taxes paid during the year. Independent variables were: 1) family income, 2) hours worked, 3) homeownership status, 4) wife's age, 5) wife's education, 6) race, 7) family size, 8) region and 9) city size. Family income, hours worked and family size were continuous variables, while the remaining independent variables were treated as dummy variables.

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[3] These data originally collected by the Institute or Social Research at the University of Michigan, were made available by the Inter-University Consortium for Political and Social Research. Neither the Institute for Social Research nor the Consortium bear any responsibility for the analyses or interpretations presented here.

[4] For a discussion of PSID methodology, see [6].

Family income was the total of aftertax income from all sources in 1981. Hours worked was the total number of hours worked for pay by a wife in 1981. The categories used to measure homeownership status were renter (reference group) homeowner-mortgage and homeowner-no mortgage. Wife's age, which is a reflection of life cycle stage, was measured by the following categories: less than 25 years old (reference group), 25-34, 35-44, 45-54 and 55-64. Wife's education consisted of less than high school (reference group), high school graduate, nonacademic training (12 grades plus nonacademic training), some college (completed), college graduate (BA or BS; also includes those with some post-graduate work but no advanced or professional degree), and advanced or professional degree (college and advanced or professional degree). Race consisted of three categories - white (reference group), black and Hispanic. Region and city size were employed as controls. A listing of the categories used in their measurement is shown in TABLES 1 and 2.

DESCRIPTION OF SAMPLE

As may be seen in TABLE 1, mean 1981 family aftertax income was $26,290 for the total sample, but was substantially higher among working-wife families than among nonworking-wife families. Nearly 70 percent of all wives were employed. The mean number of hours worked by employed wives was 1,470 and their pretax income averaged $9,090. It should be noted that in the absence of a wife's earnings, mean family (pretax) income was substantially lower among working-wife families ($23,671 in comparison with $28,004 for nonworking-wife families). Working wives tended to be younger and better educated than nonworking wives. The working-wife group had a lower mean family size and a higher proportion of black families than did the nonworking-wife group or the sample as a whole.

Housing expenditure averaged $4,617 for the total sample, but was higher among working-wife families than among nonworking-wife families ($4,745 and $4,326 respectively). As in other studies, the housing to (after tax) income ratio for working-wife families was lower than that for nonworking-wife families (16.8 in comparison with 20.0). Unlike the findings of earlier studies, the incidence of homeownership was slightly higher among working-wife families than among nonworking-wife families (71.5 percent compared to 70.0 percent). It should be noted that among homeowners, average home value was $62,856. Contrary to the findings of earlier studies, mean home value among working-wife families was $63,267, higher than the $61,904 among nonworking-wife families.

FINDINGS

The multiple regression model explained 45.46 percent of total variance in 1981 housing expenditure among sample families. As may be seen in TABLE 2, family income had a substantial positive influence on expenditure. Wife's labor force participation was negatively associated with the dependent variable; each additional hour worked by the wife in 1981 lowered expenditure by ten cents. As might be expected, those families who were homeowners with mortgages spent more on housing than did families who were renters while families who were homeowners without mortgages spent less relative to the reference group. The impact of the dummy variable set representing age indicates the presence of life cycle effects on expenditure. Families in which the wife was 45-54 or 55-64 had lower outlays than did families in which the wife was under 25 years old.

Wife's education had a substantial positive influence on expenditure. As may be seen, expenditure differentials became larger as the level of wife's education increased. Black families spent $381 less on housing than did white families; there was no difference in expenditure between Hispanic and white families. Family size had no influence on expenditure.

CONCLUSIONS

Findings indicate that the relationship between a wife's employment and family housing consumption has changed in recent years. Unlike earlier studies, working-wife families had a higher incidence of homeownership and a greater mean home value than nonworking-wife families. Although working-wife families were still found to have a lower housing to income ratio than nonworking-wife families, their higher mean income meant that the absolute amount spent on housing was, on average, greater than that among nonworking-wife families.

It should be noted that each additional hour worked by a wife lowered housing outlay by ten cents; for the average working-wife family this would only mean a reduction of $147 in annual expenditure. Since working wives usually spend more time away from home during the day, this lower annual outlay could have been the result of lower utility payments among working-wife families. It is also possible that the job-related expenditures of two earners may have lowered the amount of family income that could

TABLE 1. Mean Values and Distribution of Independent Variables Used in Multiple Regression Analysis.

Independent Variable	Total Sample (n = 2,667)	Working-wife Families (n = 1,856)	Nonworking-wife Families (n = 811)
Family Income	$26,290	$27,374	$23,826
Wife's Annual Hours Worked	1,025	1,470	0
Homeownership Status			
Renter	29.0	28.5	30.0
Homeowner-mortgage	57.4	59.6	52.4
Homeowner-no mortgage	13.6	11.9	17.6
Wife's Age			
Under 25	16.4	16.3	15.7
25-34	46.0	47.3	42.9
35-44	19.9	20.3	19.0
45-54	13.0	12.5	14.4
55-64	4.7	3.6	8.0
Wife's Education			
Less than high school	18.8	15.7	25.9
High school graduate	34.2	33.1	36.7
Nonacademic training	15.9	16.0	15.5
Some college	17.6	19.6	13.1
College graduate	10.8	12.5	7.2
Advanced degree	2.7	3.1	1.6
Race			
White	73.4	72.0	76.3
Black	23.9	25.4	20.6
Hispanic	2.7	2.6	3.1
Family Size	3.6	3.4	3.8
Region			
South	41.8	42.5	39.9
Northeast	16.9	16.7	17.3
North Central	24.9	24.1	26.6
West	16.4	16.7	16.2
City Size			
NonSMSA: largest city under 10,000	15.7	14.9	17.6
NonSMSA: largest city 10,000 - 24,999	9.8	9.8	9.8
NonSMSA: largest city 25,000 - 49,999	7.6	7.4	8.0
SMSA: largest city 50,000 - 99,999	14.3	14.5	13.9
SMSA: largest city 100,000 - 499,999	25.2	26.0	23.3
SMSA: largest city 500,000 or more	27.4	27.4	27.4

TABLE 2. Coefficients of Independent Variables in Housing Expenditure Regression (n=2267).

Independent Variables	Coefficient	F
Family Income	.05	224.40*
Hours Worked	-.10	3.83*
Homeownership Status		
Renter	----	
Homeowner - mortgage	2123.87	430.04*
Homeowner - no mortgage	-1021.56	46.57*
Wife's Age		
Under 25	----	
25-34	73.85	0.35
35-44	-62.82	0.17
45-54	-685.30	16.82*
55-64	-833.05	13.79*
Wife's Education		
Less than high school	----	
High school graduate	218.97	3.29*
Nonacademic training	495.58	11.93*
Some college	623.67	18.78*
College graduate	942.82	31.05*
Advanced degree	1351.73	24.03*
Race		
White	----	
Black	-381.49	11.91*
Hispanic	4.23	0.00
Family Size	-22.02	0.36
Region		
South	----	
Northeast	273.91	4.49*
North Central	37.58	0.12
West	531.14	17.94*
City Size		
NonSMSA: largest city under 10,000	----	
NonSMSA: largest city 10,000-24,999	-190.75	1.32
NonSMSA: largest city 25,000-49,999	365.03	4.02*
SMSA: largest city 50,000-99,999	653.00	18.73*
SMSA: largest city 100,000-499,999	763.97	31.84*
SMSA: largest city 500,000 or more	1134.76	63.40*
Adjusted R^2	45.46	

*Significant at the .001 level

be allocated to housing relative to that of a comparable family with only one earner. Of more importance, however, is the fact that without a wife's earnings, the income of working-wife families would have been substantially below that of nonworking-wife families. Given the powerful positive impact of family income, a wife's employment may have had an important indirect influence on expenditure since the resulting earnings increased the amount of income that could be spent on housing.

One explanation for the substantial positive influence of wife's education is provided by Michael's [7] neutrality model which assumes that education increases efficiency in all nonmarket activities. This greater efficiency, in turn, increases a household's real income at any given level of money income. The model also assumes that this increased income would be allocated to commodities which are considered luxuries. Although shelter has traditionally been considered a necessity, the present high cost of housing justifies its classification as a luxury, making study findings consistent with Michael's hypothesis. These findings could also result from a preference for housing consumption among families of more educated women. Which of these explanations is closest to reality, however, cannot be determined from the PSID data.

The lower housing outlay among blacks could be explained by Duesenberry's [3] relative income hypothesis which suggests that at any given income level blacks should save more and spend less than whites. It is also possible that blacks in the study sample preferred to allocate the money not spent on housing to other consumption categories. PSID data do not permit determination of whether blacks chose to save the money not spent on housing or whether this money was used for other consumption expenditures.

Although wife's employment was negatively associated with housing outlay, income, education and race were much more influential in explaining expenditure. Because this is one of the few substantive studies of housing expenditure in recent years, additional research is needed to determine whether the patterns uncovered are true of all husband-wife families or typical of the study sample only. The growing importance of working wives in the U.S. economy further underscores the need for research in this area.

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ASPECTS OF EMPLOYMENT AFFECTING CONSUMER WELFARE - DISCUSSION

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The paper on wife's labor force participation and expenditure for housing has results which, according to the researcher, differ from the literature. The wife's labor force participation, which was measured in terms of hours worked per year, had a negative effect on housing expenditure with other factors held constant. The author attributes this finding to decreased income available for housing because of extra expense related to two employed people in the home.

In my opinion, a more plausible reason for this finding relates to the methodology of this study. One-third of the sample was composed of nonemployed wives. For these families, the value zero was entered for their labor force participation. This results in a very skewed distribution rather than the normal distribution assumed in regression analysis. In attempting to fit a regression line to this distribution, the heavy weighing at the zero value for a variable whose mean over 1000 can result in a negative coefficient. This is a common error in research and one that if not understood by this audience should be discussed more fully.

A second common problem exhibited here is the treatment of sample means as if they were exact population means. I prefer not to see statements relating to higher or lower means or frequencies ($4,745 compared with $4,326 or 71.5 compared with 70.0 percent) unless either the statistical test used to determine the difference is indicated or the word "significantly different" is used. Another way to handle this problem is to include the standard deviation or the standard error on the table of means so that the readers can judge the differences for themselves. As sample means are merely estimates of the population means, the terms "different" or "higher" or "lower" should refer to differences one would expect to find in the population, with due consideration to sampling error.

It would have been reassuring to me as a reviewer to have some comments regarding the nonexistance of multicollinearity between variables. The author noted that "without a wife's earnings, the income of working wife families would have been substantially lower than that of nonworking wife families." This suggests that income and hours of the wife's employment may have been highly correlated. In addition, there is a possibility that income, defined as income after taxes (which could include a substantial deduction for mortgage interest), and homeownership status (renter, homeowner-no mortgage, homeowner-mortgage) may be highly correlated.

I wondered if the author considered any analysis other than least-square regression. In the conclusions, the author states that

> "Given the powerful positive effect of family income, a wife's employment may have had an important indirect influence on expenditure since the resulting earnings increased the amount of income that could be spent on housing."

If the decision regarding the labor force participation of the wife is made jointly with the decision regarding housing expenses, i.e., the wife is employed so that housing expenditures can increase, then the analysis is better handled by means of simultaneous equations.

As was indicated in the paper, it is important to study the determinants of housing expenditure in light of recent changes in policies. I concur with the author and suggest refinement of the model.

The paper dealing with the probability of larger amounts of market work done in the home addresses an issue of great importance to families. Certainly, the technological advances made in recent years has and will continue to enable more paid work to be done at home.

The authors present some reasons as to why this shift in workplace will occur. I suggest that cost-benefit research can and should be done to view these rationale in a better light. Rather than solely considering the income effects of this shift, the substitution effects of some factors need examination also. For example, while people might use less fossil fuel for travel and also reduce air pollution by working at a home station, more fossil fuel might actually be used to heat and/or air-condition as well as light our individual homes. Taken with added costs of additional telephone lines to the home and connection time to mainframe computers that may be long-distance, work at home, at least in the short run, might be discouraged.

Implications of policy both at the corporate and at the governmental level could be studied. The influence of the costs and benefits in terms of reimbursement of expenses or of tax deductions would be a beginning. An investigation of the characteristics of workers most likely to take advantage of the opportunity to work at home also would be warranted. The question of productivity and the consequences of lack of supervision could be addressed. Would these workers be salaried (and therefore, trusted) or will they become piece workers paid only by accomplishments?

Tradeoffs between the authors suggest results from congestion and long commuting times to work could be compared to the stress resulting from feelings of isolation at the home work station, the lack of interaction with colleagues, and the stress of having nonmarket work interruptions at home and of having to dovetail (i.e., household production and market production) unrelated tasks.

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Many unanswered questions remain and the authors gave us an excellent starting place for discussion. Cooperative Extension's mission is to assist families. Certainly the decisions to be dealt with in utilizing a home work station need to be addressed.

The paper on retirement incentives provides an excellent analysis of a current issue for both employers and employees. The limitation of the study are clearly defined, as was the procedure used to try to improve matters, i.e., the use of instrumental variables although it didn't substantially increase the sample size. The small marginal effects certainly provides information which policy makers in both the public and private sector can utilize.

I hope in the informal discussion which follows we will hear of an Extension program in the planning stage which uses a computer program to help potential retirees calculate their financial benefits.

ADVERTISING AND IDEOLOGICAL CONTENT IN FREE CONSUMER CURRICULUM MATERIALS

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ABSTRACT

Consumer educators in public schools have ready access to free curriculum materials from a variety of sources such as corporations, trade associations, governments, and non-profit organizations. Earlier accounts (e.g., 12) claim that materials from business sources contain large numbers of advertising claims and pro-business ideological statements. The research reported in this paper seeks to evaluate the extent to which this claim is true. For the first time, a systematic content analysis was conducted on materials from business (corporate and trade association) and non-business (government and non-profit) sources to identify advertising and ideological biases. Findings indicated that, while advertising content was substantial in materials from all sources, business-sponsored consumer curriculum materials contained significantly more advertising claims than did non-business materials. The number of ideological statements did not vary across material sources. Implications for curriculum policy makers, classroom teachers, and consumer educators are discussed.

The business community provides an increasing share of consumer curriculum materials for use in public schools. These materials have great appeal to financially strapped public schools: they are (usually) free; they are of high technical quality; and, in the main, both teachers and students appear to respond positively to them.

On the other hand, serious questions have been raised about the appropriateness of business-sponsored materials. A ground breaking review of business-sponsored consumer curriculum materials describes them as "propaganda" (12). As such, these materials are viewed as promoting the business cause through the use of blatant advertising messages. Further, they glorify free enterprise by promoting a productive, efficient work force (4, 12).

The business community has responded to these criticisms in a number of ways. Some have argued that most or all business-sponsored materials are not biased and that biased materials can be easily "weeded out" by classroom teachers (2,9,11). Proponents of business-sponsored materials also defend their use by pointing to the tremendous school system need for such materials and to the public relations value of such materials for its sponsors (2,11). In addition, defenders counter critics' "propaganda" accusations by attacking the motives and credibility of those critics (3,18). Others admit that the materials are biased, but insist that the business point-of-view is a legitimate one for consumer curriculum materials (1,10). Finally, some argue that the problem of bias is minute compared to the advantages in resources, technology and expertise of the business community (9,16).

Are some, most, or all business-sponsored consumer curriculum materials in fact promoting the products and/or ideologies of their producers rather than providing unbiased (or at least balanced) consumer education for students? Do business-sponsored materials indeed contain more advertising and ideological content (both verbal and pictorial) than do consumer curriculum materials sponsored by non-business organizations? We do not have an answer to these questions. Critics of business-sponsored materials, who would respond to these questions with a resounding "Yes", have thus far relied entirely on unsystematic reviews of such materials, including descriptive accounts of particularly objectionable examples (e.g., 12). The extent to which business-sponsored materials are or are not "propaganda" has not beem empirically studied.

It is the purpose of the present paper to report results of the first systematic content analysis of free consumer curriculum materials. This use of a content analysis methodology is an attempt to "let the materials speak for themselves." Free consumer curriculum materials were solicited from both business (corporate and trade association) and non-business (government and non-profit organizations) sponsors. The sample of materials received was analyzed for its advertising and ideological content.

HYPOTHESES

If, as the critics claim, business-sponsored consumer curriculum materials are part of a major propaganda salvo aimed at creating brand loyal consumers-of-the-future, then the following hypothesis should be supported. Hypothesis 1: Business-sponsored consumer curriculum materials will contain more advertising claims than will non-business materials.

Critics have also claimed that many free consumer curriculum materials attempt to indoctrinate young students thorough one-sided presentations of the free enterprise system and their future place in it. In this regard, critics note, materials sponsored by government agencies as well as the business community are suspect (11,15). Thus hypothe-

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sis 2 states: Corporate, trade association, and government agency free consumer curriculum materials will contain more free enterprise statements than will materials from non-profit organizations.

METHODOLOGY

A sample of free educational materials was selected from the Elementary Teacher's Guide to Free Curriculum Materials (17). This guide was obtained from a local elementary school and is one of ten volumes currently available to school systems (8). Its use as a sampling universe produces a manageable sample size (13) in that only print materials are listed (17). The sample was selected within the same consumer relevant areas highlighted in (12): nutrition, energy, and economics education. Within these subheadings every fifth item was requested by mail from the respective sponsor. Request letters dated January 20, 1984, were sent on a New England elementary school letterhead over the signature of a local teacher.[2]

Operational Definitions

Material sources were categorized as either corporations, trade associations, government agencies, or non-profit organizations. Corporate-sponsored materials are those from for-profit organizations whose primary goal is to market specific merchandise and/or services for financial gain. Trade association materials are those from any association of merchants or businesses united to promote their common interests. Government-sponsored materials are those from any federal, state, or local government agency. Non-profit organization materials are those from groups not designed to promote merchandise and/or services for financial gains.

Advertising claims were defined as any statements promoting a product, brand, model, corporation, trade association, government agency or non-profit organization. Free enterprise statements were defined as any statements promoting free enterprise capitalism as an economic system.

Two coders were trained to do the content analysis on the sample material. (Training was done using materials other than those acquired for the study.) One coder analyzed the entire sample of materials; the second coder analyzed a randomly-selected subset of the materials (approximately 15 percent of the total sample). Inter-coder agreement on the mutually-coded 15 percent of the sample (88.5%) was considered sufficiently high to preclude having both coders analyze the entire sample.

RESULTS

Of the 142 educational material items requested from 103 material sponsors, 116 useable items were received from 86 sponsors for an 81.7 percent response rate (items) and an 83.5 percent response rate (sponsors). Any materials received that were not consistent with the titles requested were rejected.

Hypothesis 1 predicts that business-sponsored (corporate and trade association) materials will contain more advertising claims than will materials from non-business (government and non-profit organizations) sources. The results shown in Table 1 indicate the mean number of advertising claims across these two materials sources. As predicted, business-sponsored materials contain significantly more advertising claims than do non-business materials.

TABLE 1. Mean Number of Advertising Claims Per Item Across Material Sources

		Mean Number of Advertising Claims Per Item	n
Material Source	Business (Corporate, Trade Association)	20.31	71
	Non-Business (Government, Non-Profit Organization)	10.89	45
	t (one-tailed)	2.17	
	p	.05	

Hypothesis 2 predicts that corporate, trade association, and government agency materials will contain more free enterprise statements than will materials from non-profit organizations. The results shown in Table 2 indicate the mean number of free enterprise statements across these two material sources. Corporate, trade association, and government materials do not contain significantly more free enterprise statements than do materials from non-profit organizations.

DISCUSSION

It is apparent from this study that the critics of business-sponsored free curriculum materials are correct when they claim that the materials contain large amounts of advertising. The business-sponsored materials in our sample contained almost twice as many advertising messages as the non-business materials. In fact, business-sponsored materials contained an average of 20 advertising statements per item. It should be noted that these figures do not reflect the presence of additional "advertising related" pictorial and verbal statements, e.g. company name, logos, brand names, pictures of brands, etc. In this context, the amount of advertising found in these materials is truly astounding. While these figures should be of concern to consumer educators, perhaps of even more concern should be the findings that non-business-sponsored materials in our sample contained an average of nearly 11 advertising messages per item. It appears that promotional statements are hardly absent from even non-business-sponsored materials.

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[2] A sample request letter and a complete list of requested free material titles and sponsors are available from the first author upon request.

Free enterprise statements, on the other hand, appear to be much rarer in free curriculum materials. Further, there were no significant differences in numbers of free enterprise statements across material sources. The relative paucity of free enterprise statements may be partly due to a perception on the part of the business community that the "attack" on free enterprise economics has subsided since its peak in the late 1960's/early 1970's and the belief that since the 1980 election the free enterprise ideology is once again transcedent.

The results of this study carry important implications for curriculum policy makers, for teachers, and for consumer educators in academia. The fragmented and confused state of curriculum policy making (14) has apparently been exploited by the business community through its successful infiltration of the curriculum process (19). Curriculum policy makers can no longer ignore the commercialization of their curricula through use of business-sponsored materials. It is clear that these materials are largely vehicles for advertising and are not primarily intended to serve an educational function.[3]

TABLE 2. Mean Number of Free Enterprise Statements Per Item Across Material Sources

		Mean Number of Free Enterprise Statements Per Item	n
Material Source	Corporate, Trade Association, Government	6.37	90
	Non-Profit Association	2.46	26
	t (one-tailed)	1.53	
	p	n.s.	

Classroom teachers, influential agents in the education process, must decipher curriculum policy and administer it to students. Ambiguous or nonexistent policies regarding use of business-sponsored materials leave individual teachers with the primary gatekeeping responsibility (5). As such they must accept or reject undefined curriculum policy mandates and materials. Because teachers are untrained and inconsistent gatekeepers (at least when it comes to dealing with business-sponsored curriculum materials), business sponsors have a good chance that many of their materials will be used in the classroom.

The findings of this study provide two major challenges for consumer educators. First, consumer educators should see to it that the results of this study are given the widest possible distribution. Classroom teachers, as well as educational and consumer policy makers, should be made aware of the nature of business-sponsored curriculum materials.

Along these lines, efforts should be made to develop and disseminate to classroom teachers and educational policy makers improved set of guidelines for evaluating free consumer curriculum materials. Currently-available guidelines (e.g. 6,7) contain evaluative criteria which are vague and provide little real guidance for classroom teachers. For example, one set of guidelines contains the following criterion questions: "Is the material free of bias, deception or exaggeration?" (6). Teachers are to assign a "yes", or "somewhat" response to this item. Nowhere is bias, deception, or exaggeration defined and no help is provided to the teacher in pinpointing actual instances of bias, deception, or exaggeration. Certainly no help is provided in assessing acceptable degrees and direction of bias. The results of the present study support the contention that, because they contain large amounts of advertising, virtually all business-sponsored material is biased and deceptive. Further, current guidelines do not contain any explicit reference to advertising content in curriculum materials. As the present study indicates, advertising messages pervade these materials. Classroom teachers should have available to them guidelines which help them identify specific instances of advertising. A second implication of this study for consumer educators concerns the need for more research on the nature of consumer curriculum materials. As was indicated earlier, the present study concerned itself only with the presence of advertising and ideological claims in materials. Further research covering the entire realm of "commercial content" in free consumer materials is needed. Such research could examine use of company and brand names, logos, illustrations, etc.

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[3] An interesting commentary on the commerical intent behind business-sponsored materials was provided in a letter received by the researchers from the California and Hawaiian ("C & H") Sugar Co. in response to our request for copies of two of their free educational materials. The letter from C & H, informing the researchers that their request had not been filled, stated that "...distribution of these materials has been limited to the areas where our C and H brand is normally sold..." (not the East Coast).

In fact, research analyzing materials content should be an ongoing process. Because these free materials are unregulated, they can be changed at any time. If changes in materials are to be accurately tracked, samples should be analyzed periodically. The results of such analyses could be used to expand and update the guidelines for evaluating free consumer curriculum materials.

Of final importance is the finding in the present study that even non-business-sponsored materials contain substantial amounts of advertising. Future research should include analyses of school textbook content and perhaps a comparison of such content with that of non-business-sponsored free materials.

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FAMILY INCOME LEVELS AND THE INFLUENCE OF TELEVISION COMMERCIALS UPON CHILDREN'S PURCHASING BEHAVIOR

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ABSTRACT

Television commercials have an impact upon children's consumer socialization, and a widely held hypothesis is that children from lower income families are more easily persuaded than children from upper income families. This study addresses that hypothesis with a sample of kindergarten and third graders using an experimental design approach. Results indicate that income may not be as important a discriminator as generally thought.

Television commercials aimed at children are an issue because children do not possess the cognitive skills necessary to understand them. Until about the fourth grade, children do not understand the selling intent of advertisements and cannot distinguish between the presentation of factual information and the intent to persuade [8] nor discriminate between commercials and programming [16]. Hence, children are especially vulnerable to television commercials.

Studies have attempted to measure the influence of television commercials aimed at children, but the evidence of such influence is inconclusive. Studies have looked at age (surrogate for cognitive development) and income level and suggested that younger and less affluent children are more likely to be persuaded. With respect to age, studies have suggested that younger children (2-7 years of age) have fewer cognitive abilities to understand the selling intent of television advertisements, and thus, are more easily persuaded than older children (7-12 years of age).[3] Similarly, a study has suggested that lower income children are more likely to be persuaded; however, actual evidence of this is lacking [4].

Another problem with assessing the influence of television advertising on children's purchasing behavior is measurement. There is a need to establish a more direct link of cause and effect than the descriptive survey method that is given in the consumer socialization literature. In order to test cause and effect hypotheses, experimental design is the most appropriate methodology [5]. The purpose of this study is to assess, through an experimental approach, whether exposure to television commercials has an immediate impact upon children's purchasing behavior, and more specifically to determine if family income level is a discriminating variable.

REVIEW OF LITERATURE

Children are influenced by television commercials aimed specifically at them, [1,3,4,8,11]. However, the extent of such influence may vary according to the stage of cognitive development of the child, sex of the child, family income, parental guidance and perhaps other variables [6,13].

No widely accepted conceptual or theoretical framework exists for predicting what kind of influence television commercials aimed at children have upon children's purchasing behavior; however, hypotheses have been formulated from the current literature [2,8,11]. Currently accepted hypotheses are that younger pre-operational children are more persuaded by commercials than older concrete-operational children [4,14,17], and that children from disadvantaged family backgrounds are "more vulnerable to advertising's persuasive influences" [4, p. 15] than children from advantaged family backgrounds.

Younger (pre-operational) children do not understand the selling or persuasive intent of television commercials because of fewer cognitive skills than older (concrete-operational) children [12]. There is less evidence regarding the effect of family income upon children's understanding of commercials. Children from disadvantaged family backgrounds (i.e., low family income) are thought to be particularly limited in their information-processing abilities [4,9]. Income appears to be an influencing variable, irrespective of cognitive stage [7]. In a study of children's Christmas gift requests, children from middle income families (average income $9,000) requested more gifts than children from upper income families (average income $14,500). However, children requested much the same kinds of items regardless of age or social class. Children most often listed television as a primary source of information for the gifts requested [4]. This was an indirect way of assessing the impact of television commercials upon children's requests by income level. Another study attempting to measure socioeconomic variables, found that lower status parents appear to give children more opportunities to operate as independent consumers [17].

Therefore, the literature is inconclusive on the degree of influence that television commercials have on children's purchasing behavior. The major hypothesis that this study seeks to investigate

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[3] These two age categories represent the stages of cognitive development, pre-operational and concrete-operational [10]. Children in each stage possess different cognitive abilities to process information [15].

is that television commercials have more impact on immediate purchase behavior of children from low income families, than of children from high income families. Recommendations have been made that increased emphasis should be placed on experimental studies to supplement descriptive studies which have already been published [4,8, 11]. In addition, it has been recommended that more samples be drawn from the western part of the United States which has been underrepresented in studies to date [11]. Thus, there is a need to 1) assess actual purchase influence, 2) sample children from the western part of the United States, 3) use an experimental design approach and 4) study the effect of family income.

METHODOLOGY

Family income was operationalized in two ways to determine if income level had a significant effect upon children's purchases as a result of viewing television commercials. The first measure was low-income area school versus high-income area school. The second measure was self reported income which parents noted on permission slips the children took home.

Sample Design

The sample used in this study consisted of 79 kindergarten children and 92 third grade children in Tucson, Arizona. Two schools were selected according to census tract information regarding income level. One school was selected from a census tract where median income level was less than $15,000 and another from a census tract where median income level was greater than $15,000. Within the selected tract areas, selection of schools was influenced as to which schools agreed to participate in the project. All children in kindergarten and third grade were used in each of the selected schools. There were a total of eight classes involved in the experiment. Four classes were kindergarten and four were third grade classes. For a complete breakdown of the sample design, see Table 1.

TABLE 1: Sample sizes by school, grade and treatment group

	Kindergarten	Third Grade	Totals
Low-income school			
experimental group	27	33	60
control group	28	41	69
High-income school			
experimental group	8	11	19
control group	16	7	23
Totals	79	92	171

Treatment Stimulus

Each control class saw a 10 minute cartoon, and children were then given play money and taken to a simulated store and asked to choose one brand out of five choices from each of three different product categories: cereal, gum and cookies. These product classes were chosen because advertising for these products is often aimed at children. Therefore it was felt that children would possess a certain degree of experience and familiarity with these products which would probably fall within the children's evoked sets.

All students in the experimental groups also saw the same cartoon but with three commercials inserted in the middle of the cartoon. The commercials were typical, lasting about 30 seconds each. One advertisement was for a highly sweetened cereal, one for gum and one for cookies. The children from the experimental group were also given play money and taken to a simulated store where they had the same choices as the control groups. All five brands offered in each of the three product categories were commonly advertised brands, including the one the children saw during the experiment.

Children were taken individually to the simulated store and afterwards proceeded to a location apart from the rest of the class to insure that their choices were not influenced by their classmates. Purchasing influences were measured by observers who recorded which brand of cereal, gum and cookies each child selected. Each child wore a number tag and was referred to by number on the coding sheets. Two observers were present at the simulated store.

RESULTS

Table 2 presents mean income figures based on self reported income. Chi square analyses were done to see if the choices the students made differed significantly from what could be expected by chance. If they differed, then it could be concluded that the exposure to the advertisement earlier in the classroom had a persuasive effect upon the children's purchasing behavior. Results of this test (presented in Table 3) indicate that viewing the commercials during the experiment did not influence the children's purchases. This was the case when the sample was divided according to both kinds of income measures and when the total sample was considered.

TABLE 2: Mean incomes and standard deviations

	N^a	Mean	Standard Deviation
Total Sample	171	$15,754.31	10152.21
Income < $15,000	63	$ 7,380.95	3519.20
Income > $15,000	53	$25,707.55	5220.55

[a] Sub-samples do not add up to total due to missing data.

TABLE 3: Chi Square Values for Experimental Group Versus Control Group by Type of Product[a]

Sample[c]	Cereal[b]		Gum		Cookies	
	A	B	A	B	A	B
INCOME < $15,000:						
Experimental Group						
N	4	20	5	19	7	18
%	17	83	21	79	28	72
Control Group						
N	5	30	5	30	16	19
%	14	86	14	86	46	54
Chi Square Values	0.062		0.434		1.936	
INCOME > $15,000:						
Experimental Group						
N	5	18	3	20	8	15
%	22	78	13	87	35	65
Control Group						
N	3	24	3	24	10	17
%	11	89	11	89	37	63
Chi Square Values	1.044		0.044		0.027	
LOW-INCOME SCHOOL:						
Experimental Group						
N	17	42	12	47	23	37
%	29	71	20	80	38	62
Control Group						
N	13	48	10	51	23	38
%	21	79	16	84	38	62
Chi Square Values	0.900		0.312		0.005	
HIGH-INCOME SCHOOL:						
Experimental Group						
N	3	12	3	12	8	7
%	20	80	20	80	53	47
Control Group						
N	2	25	4	23	13	14
%	7	93	15	85	48	52
Chi Square Values	1.458		0.187		0.050	
TOTAL SAMPLE:						
Experimental Group						
N	20	54	15	59	31	44
%	27	73	20	80	41	59
Control Group						
N	15	73	14	74	36	52
%	17	83	16	84	41	59
Chi Square Values	2.370		0.520		0.003	

[a] None of the Chi Square Values are significant at $p < 0.05$

[b] A = Chose advertised product; B = Chose an alternate product

[c] % = The percent of the total experimental or control group choosing the advertised product (A) or choosing an alternate product (B).

CONCLUSIONS

There was no support for the hypothesis concerning the effects of income level upon the decision to purchase advertised brands. Furthermore, support was not found for the hypothesis that television commercials aimed at children have a persuasive influence upon children's immediate purchase behavior. However, it should be noted that this study used a rather small sample size. An additional concern is that children may have seen advertisements for many or all of the five brand choices within each product category and thus, there may have been other persuasions to purchase rather than the advertisements they saw in the classroom. Familiarity, experience or preference for the non-advertised brands were not controlled. Another limitation could have been that not all five brands were in the children's evoked set of brands. Thus, one or more of the five could have been eliminated from the preferred choice. This could be one explanation for why the advertised brand was not more readily chosen.

This study strengthens the literature in that it is a sample from the western part of the United States. The sample size was similar to most other studies and thus, the results can be compared with other studies on that basis. While experimental designs have certain limitations, there was a call for more use of experimental designs to supplement existing survey data.

A particular strength of this study is that it measures the children's purchasing behavior (giving them their own play money). Other studies measured children's purchase requests, as a measure of influence on purchasing behavior. Measuring purchase requests is insufficient given that children have some knowledge as to what parents will agree to purchase or not purchase. Purchase behavior is different from purchase requests, because children may also possess perceptions of how successfully they can persuade their parents to purchase the requested product.

This study sought to see if there were differences in purchases by income level,and the income differences were purposely exaggerated; i.e., one school was a low-income school and the other a high-income school. Thus, if any differences exist according to income level this study should have been able to detect them, given the extremes represented.

The results of this study indicate that children are not influenced by television commercials as much as has been hypothesized. Income level apparently has little or no effect upon the decision to purchase related to products advertised, at least when the children are given the opportunity to purchase for themselves. Additional research should investigate not only children from different family income levels but also look at age differences, gender differences, and socioeconomic differences with respect to the influence of television advertising on children's immediate purchase behavior.

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ARE WE CREATING A "BRAND" NEW LANGUAGE? A CONTENT ANALYSIS OF COMMERCIAL EXPRESSIONS IN THE LYRICS OF POPULAR AMERICAN SONGS IN THE POSTWAR ERA

Monroe Friedman, Eastern Michigan University[1]

ABSTRACT

This study is the third in a program of research on commercial influences in popular cultural contexts. All three consist of content analyses of brand name usage in popular American cultural products in the postwar era. The first two studies found dramatic increases in brand name usage over the course of the postwar period, with brands high on the psychological dimension of value expressiveness mentioned most frequently. These results were also found in the third study which examined the lyrics of the top American song hits of each year for the 1946-1980 period.

In recent years critics have expressed concern about what they perceive as the deleterious effects of advertising and other commercial practices on language and culture. Typically, however, the quality of evidence cited by these critics to support their charges has fallen short of customary scholarly standards, consisting largely of anecdotes and unconfirmed subjective impressions.

The present study is the third in a series of objective research efforts aimed at generating an historical data base which may permit a more meaningful discussion of the commercialization question. The study seeks to understand the impact of commercial practices on popular forms of language in the United States by examining the usage made since World War II of brand names in the lyrics of popular songs.

THE COMMERCIALIZATION CHARGE

By way of background it should be noted that advertising, the commercial practice of perhaps greatest concern to the critics, has been a source of controversy in the United States for over fifty years. In their 1927 classic, Your Money's Worth, Stuart Chase and F.J. Schlink concluded that, "We are Alices in a Wonderland of conflicting claims, bright promises, fancy packages, soaring words, and almost impenetrable ignorance" (p. 2). Similarly harsh sentiments continued to be voiced through the last few decades with the publication of Vance Packard's Hidden Persuaders in 1957, John Kenneth Galbraith's New Industrial State in 1967, Stuart Ewen's Captains of Consciousness in 1976, and William Meyers' The Image-Makers in 1984. Recently, the historian Barbara Tuchman also observed that "... our culture has been taken over by commercialism directed to the mass market and necessarily to mass tastes." (6, p. 40).

These various criticisms no doubt reflect the rapid growth of advertising in the United States, and especially since World War II. To illustrate, U.S. advertising expenditures (in dollars) rose from 2.9 billion in 1945 to 66.6 billion in 1982. While we should be quick to add that these figures exaggerate the real increases which occurred since they are reported in current prices, and since, too, the beginning years for the periods were in many respects not typical peace-time years, it nonetheless seems clear that advertising is much more present in our lives today than it was in the late forties and early fifties - a circumstance which is no doubt due in large part to the predominant role of television in the present era as a carrier of advertising messages.

With the greater presence of advertising in America has come, the critics argue, a general debasement of social values through the commercialization of our culture and language. Since this charge has typically been viewed as incapable of operationalization, its various expressions have remained largely subjective and impressionistic. It is this circumstance which prompted the present series of studies which use an objective research approach to examine brand name usage in popular forms of language and literature.

THE STUDY BACKGROUND

As indicated earlier, the present study is based on two earlier studies which examined brand name usage in popular novels and plays in the post-World War II era. The major hypothesis of these studies is of special interest since it served as a basis for formulating one of the major hypotheses of the present study. Since a primary objective of most consumer-oriented advertising is the identification and subsequent purchase by consumers of a particular brand-named product ("Don't say beer, say Bud"), it seemed reasonable to hypothesize that success in reaching this objective for thousands of business firms over the years has been accompanied by an elevation of the level of consumer familiarity with and usage of brand names in everyday language. In light of the unavailability of a representative sample of transcripts of telephone conversations or records of written correspondence between friends or relatives over a substantial period of time, it was decided to explore this hypothesis by examining a surrogate. Hit songs were selected as the surrogate since they are available over the 35-year period of interest to the study and their popular success with the American public strongly suggested that the language used therin was appropriate for the times in which they were published.

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[1] Professor of Psychology. The author would like to thank Rita Friedman, Nancy Gold and Richard Jackson for their assistance with the data collection and analysis phases of this study. Financial support provided by Eastern Michigan University is also gratefully acknowledged. An earlier version of this paper was presented at the 9th annual meeting of the International Association for Research in Economic Psychology held in Tilburg, The Netherlands in July 1984.

THE RESEARCH HYPOTHESES

Based on the findings of the two earlier studies, three hypotheses were set forth. To test them required the identification of a sample of popular song hits and the analysis of their lyrics for the presence of brand names and generic names. The hypotheses are as follows:

1. When applied to the sample of song hits, the two measures of brand name usage employed in the earlier studies (total number and variety) will show increases over the course of the postwar period.

2. Parallel increases, however, will not be manifested in the popular song sample for generic names over the course of the postwar period.

3. Brands for consumer products high on the dimension of value expressiveness will appear more frequently in the popular song sample than will other brands.

PROCEDURES

The Study Sample

The study sample was drawn from a commercial compilation of top ten national hits for each year of the 1946-80 time period. The pool of top ten hits was then screened for appropriateness using several criteria. Considered inappropriate for the purposes of this study, and thus deleted from the pool, were instrumental pieces (no lyrics), songs set in earlier historical periods, songs with foreign language lyrics, and songs copyrighted before 1946. Also, to assure independence of the data, steps were taken to assure that all songs selected for study were composed by different lyricists or teams of lyricists (If a lyricist or team of lyricists had more than one top ten hit during the 1946-80 time period, the earliest one was selected for inclusion in the sample.)

The sample which remained after the above criteria were applied consisted of 256 songs. Of this total, 36 received copyrights in the 1946-50 period, 74 in the 1951-60 period, 77 in the 1961-70 period, and 69 in the 1971-80 period. Among the more familiar selections (and their years of top ten status) are "Near You" (1947), "Because of You" (1951), "Love Letters in the Sand" (1957), "Satisfaction" (1965), "Joy to the World" (1971), and "You Don't Bring Me Flowers" (1978).

Brand Name Analysis

Before the songs in the study sample could be scrutinized for the presence of brand names, it was necessary to first define the term. Since an effort to uncover a generally accepted meaning for brand names did not meet with success, a working definition was established. A brand name was defined as a distinctive commercial term used by a firm to identify and/or promote itself or one or more of its consumer products or services. By this definition, brand names may refer to products or services as well as manufacturers or retailers. They may or may not be registered as trademarks. Due to practical limitations, only national brand names were included in the content analysis.

MAJOR RESEARCH FINDINGS

The findings relating to the three study hypotheses, when taken together with the results of the two earlier studies on bestselling novels and hit plays, offer support for the following empirical generalizations:

1. Since World War II, the number and variety of brand names appearing in the popular literature of the United States have increased.

2. Since World War II, a parallel increase has not occurred in generic name usage in the popular literature of America.

3. The brands most frequently mentioned in the texts of the popular literature in the postwar era represent products high on the psychological dimension of value expressiveness.

The significance of these findings would appear to be considerable. For what is perhaps the first time, objective evidence has been uncovered to support the allegations of commercial influence in the non-commercial spheres of society. And the evidence suggests that the linguistic prominence enjoyed by brand names in the commercial sector is rapidly diffusing into the non-commercial sector.

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DISCUSSION PAPER ON ADVERTISING AND THE CONSUMER

Jill Rader Hayes, University of Wisconsin[1]

ABSTRACT

The three papers presented in the "Advertising and the Consumer" session were related in that they all examined commercial messages in the mass media. They also focused on the effects or implied effects of those commercial messages on consumers. The format of the discussion paper was to react to each paper individually and to conclude with summary comments. To understand media effects, consumer-interest professionals are urged to become interdisciplinary and investigate bodies of research outside the marketing and economic literature.

ADVERTISING AND IDEOLOGICAL CONTENT IN FREE CONSUMER CURRICULUM MATERIALS

The purpose of the research was to examine the extent to which business-sponsored materials are "propaganda." The authors pointed out that the research offers the first "systematic content analysis of free consumer curriculum materials." In content analysis, "systematic" means that the inclusion and exclusion of categories is done according to consistently applied rules. The analyst must clearly define the indicators which determine whether a given datum falls within the category which are operationally defined [1].

This paper could have been improved if examples of the operational definitions of the advertising and free-enterprise statements would have been included. Advertising claims were defined as, "any statements promoting a product, brand, model corporation, trade association, government agency or non-profit organization." It would have been interesting to have seen whether the promotional statements appearing in the government and nonprofit sponsored materials weren't qualitatively different than the promotional messages in the corporate materials. The sources of the messages would have different intents on including such statements. For example, if a government agency urged consumers to contact them about certain problems, or to use their services, was that considered a promotional statement? Or, if a nonprofit group tried to explain how that organization functioned, was that considered a promotional message? Part of governments' and nonprofit organizations' public relations function is to get the public aware of their existence -- not to sell them a product nor a service, but to offer assistance and information.

Initial definitions of content analysis required that references from data be derived strictly from the frequency with which symbols or messages appear. But, some fruitful studies have combined frequency and nonfrequency techniques where appearance or nonappearance of certain key symbols are coded [1]. In other words, researchers are looking at noncontent as well as content. This technique would seem particularly relevant in the paper when the researchers are looking at "free-enterprise statements." Relatively few of the statements were found in the materials from the sources, but were any other economic systems or structures discussed? Silence is one method to protect and maintain the status quo.

One limitation of the generalizations of this paper should be that the sample was drawn from elementary curriculum materials. Analysis of multi-level materials should be included in the future.

An important suggestion was made by the researchers when they concluded that the entire commerical content of free materials is needed (e.g. photographs, logos, illustrations). However, nonprint sources should also be included in future research. Films, videotapes, audio tapes, slide presentations, and film strips are all part of the universe of free materials sponsored by various sources.

In the area of nonverbal communication, research needs to take a critical step and investigate the influence of visual images and messages on consumers. Instead of turning to marketing-oriented research publications for these approaches, perhaps the consumer-interest field will turn to research in visual anthropology or visual sociology.

Future research in the area of free consumer curriculum materials can be productive if it can measure how much these materials are used in the classroom and can identify how teachers are actually using them in classroom situations. It may be that calling teachers "untrained and inconsistent gatekeepers," as this study did, is an inaccurate conclusion.

Another key issue for research in this area will be how to evaluate the materials. Can content be compared with some standard of performance? What would a completely "objective" piece of consumer education material look like? All human communications are biased in one sense or another. Interpretations of content will depend on the constructs in the investigator's mind and the meanings given to specific messages for a given population at a designated time.

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[1] Assistant Professor, Consumer Science

FAMILY INCOME LEVELS AND THE INFLUENCE OF TELEVISION COMMERCIALS UPON CHILDREN'S PURCHASING BEHAVIOR

The researchers are to be commended for addressing two topics that need to be on the consumer-interest agenda -- consumer socialization and media effects. Rather than itemize the problems with this particular study, the following discussion will focus on several areas of the study and make some general comments about this type of research.

One of the main purposes of the study was to determine whether exposure to television commercials has an immediate impact upon children's purchasing behaviors. Exposure to commercials in the study consisted of three 30 second spots. Therefore, the design and purpose of the study fit into the "mere exposure" hypothesis or direct stimulus-response model in mass communications research. The findings of this study lead the researchers to conclude that, "Children's immediate purchase behaviors are not influenced by television advertising." So, this study supports the findings of a massive body of literature for the "limited effects" model of mass communications research. The findings are no surprise.

The following is a question asked by mass communications researchers McCloud and Reeves, "Why after all of this research and public clamor about television effects, can't we say with greater clarity and certainty whether the medium does or does not affect the behavior of children and adults in harmful or beneficial ways?" [4:545]. The answer, or course, is that the subject under investigation is uncomfortably complex. Media effects are more likely to be found if researchers understand that the consequences of exposure to media content are varied and interacting. Indeed, researchers have identified at least 32 possible types of effects. Even a partial answer to the puzzle of media effects must consider: the number and types of potential effects, the complexity of media stimuli, the special problems of documenting effects, and the varying strategies of making inferences from the evidence [4].

In the area of children and the influence of television advertising, a great deal of work on contingent conditions has appeared. Such factors as peer and parent influences, as well as many characteristics of the children and their media use and exposure patterns have been shown to condition or mediate children's responses to commercials. [5]. As McLeod and Reeves point out, "A simple positive correlation between media exposure and some effect is a necessary, but not a sufficient basis for inferring that the media exposure caused (or did not cause) the effect" [4, p. 257].

Looking at future studies in the area of consumer socialization, researchers must seek a complex, interacting model. Ward and Wackman found that adolescents' consumer learning is not simply an individual stimulus-response model, but it is a social learning process influenced by, among other variables, recall of television advertising, attitudes toward television advertising, a materialistic orientation, family communication patterns about consumption, type of media used, reasons for media exposure and length of media exposure [6]. McLeod concludes that the designs required for the adequate study of consumer socialization are a long way from those now seen in the literature and that their limitations signify an undernourished research area [3].

ARE WE CREATING A "BRAND" NEW LANGUAGE? A CONTENT ANALYSIS OF COMMERCIAL EXPRESSIONS IN THE LYRICS OF POPULAR AMERICAN SONGS IN THE POSTWAR ERA

Praise is offered to the author of this paper. By taking a popular culture and American Studies approach to investigating the consumption culture, Friedman has brought a needed and lacking view to the conference. The comments on this paper will begin with an overview of media effects in the hopes that the effort will help tie all three papers together.

Media effects can be broken down into several major categories [2]. One can look at individual effects (the micro level) -- as the research on the influence of advertising on individual consumers did. Or, one can investigate the cultural and sociological effects (the macro level) -- such as the examination of American culture did. Short-term effects, such as the paper on children and advertising, can be investigated. Or, long-term effects, such as Friedman's approach, can be the focus of empirical attention.

As discussed earlier, short-term, direct stimulus-response models of mass communications effects have created volumes of research with predictable "no influence" or "limited effects" findings. The challenge to the consumer-interest field falls to researchers investigating the macro-level, long-term effects of communications on consumers. The largest problem in the area, naturally, is defining, measuring and interpreting those effects.

Friedman's examination of cultural transmission through the content of popular American songs is important. It's important because at the aggregate level, communication becomes a part of the collective experience of groups, publics and audiences of all kinds. Mass communication is a major tool in the transmission of culture.

The main observation made about this paper was the lack of discussion about why the increase of brand-name usage occurred. What was the source's intent? Artistic production often falls under the phrase, "art imitating life." During the time period analyzed, there was an increase in brand-name goods and services available in the marketplace. The use of brand-names in books, plays and songs could be seen as a reflection of reality.

The use of brand-names also reflects human behavior. Individuals don't usually say, "I feel like having a cola." They say, "I want a Coke." Certainly, most persons don't ask for a facial tissue; they request a Kleenex. And almost everyone has turned the phrase "Xeroxing" into a verb that means photocopying.

Using brand names adds to the artist's rendition of reality. Think of Bruce Springsteen's popular song Pink Cadillac. It wouldn't have the same impact if he sang, "In the back of your pink, large, luxury car." It detracts from the artist's imagery. This artistic goal of image creation for emotional appeal and for creating realistic situations may explain the increase in brand-name usage and may also explain this paper's finding that the use of generic names has not increased.

As the author of the paper maintained, the fact that some corporations will pay for having artists use their brand names in their artistic products, does not fully explain the increased brand-name usage in the study's findings. There is no simple casual model. Analyzing the cause and effects of the commercialization of our culture and our language will prove to be an agonizing, but worthwhile, undertaking.

CONCLUSION

The increased use of content analysis in consumer research is noteworthy. It is hoped that researchers in the field will begin to understand and use the method as more than a simple counting tool. Researchers should become aware of the scope, depth, and standards of the methodology.

In terms of media effects, the consumer research area has a long, long way to go before advertising and other mass media messages' effects can be understood. An invitation is offered to consumer-interest professionals to become truly interdisciplinary and investigate bodies of research which aren't always found in marketing research nor in economic research journals. Welcome to a constellation of new ideas.

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CONSUMER EDUCATION: THE BUSINESS SECTOR'S CONTRIBUTION

Peggy H. Haney, American Express Company[1]

ABSTRACT

A special edition of MOBIUS, the official publication of the Society of Consumer Affairs Professionals in Business focuses on "Consumer Education: Lessons, Challenges and Opportunities." A broad spectrum of authors point out the growing diversity of providers, receivers and delivery systems for consumer education. Suggested guidelines for evaluating business-sponsored consumer education materials are provided.

Consumer education programs in the business sector have evolved over the years as evidence has accumulated about the effectiveness of consumer information and education in attracting customers through an improved corporate image or as an aspect of social responsibility.

Renewed interest by the business community as to the importance of consumer education is indicated by a recent special edition of MOBIUS, the official publication of the Society of Consumer Affairs Professionals in Business (SOCAP). "Consumer Education: Lessons, Challenges and Opportunities" examines the origins, accomplishments and challenges for the future of consumer education. This effort, a project of last year's SOCAP Consumer Education Committee, was initiated to stimulate discussion of the need for a national agenda for consumer education. We asked a broad spectrum of consumer educators to contribute their views on the lessons, challenges and opportunities for consumer education.

DIVERSITY

A "subtheme" for this issue became increasingly evident as each paper was submitted. Authors consistently pointed out the growing diversity of providers, receivers and delivery systems for consumer education. I'd like to briefly highlight some of the articles in this special edition of MOBIUS.

David Schoenfeld, President of the National Coalition for Consumer Education, traces the development of consumer education from the early home economists of the 1920's, to the "landmark" establishment of a Supervisor of Consumer Education in the New York City Schools in the 1930's, to the 1942 Consumer Education Study sponsored by the National Association of Secondary School Principals, to the high visibility Kennedy era when a Consumer Advisory Council was appointed to advise the Council of Economic Advisors. This latter appointment subsequently led to the formal articulation of the four consumer rights.

Carl Hall, Head of the Consumer Studies Program at Oklahoma State University, in his paper includes a suggestion that we focus more energy on developing local initiatives and coalitions to strengthen and expand consumer education programs.

David Pittle of Consumers Union asks provocative questions about the role of government health and safety consumer education - or "persuasion campaigns" - versus regulation. He questions the wisdom of the popular viewpoint that government agencies should primarily inform and educate the public about product risks rather than write and enforce health and safety regulations. Pittle wonders just how effective these consumer education campaigns are, especially in breaking deeply fixed consumer habits. He also cites a lack of adequate campaign evaluation and long-term assessments.

Other authors suggest that new ways to reach the consumer with the right information - particularly product evaluation comparisons - need to be investigated. Jean Judge lists business' responsibilities and objectives for a successful, cost-effective consumer education program.

A futurist at the Institute for Alternative Futures, highlights changes which are evident today, and which will become more so in terms of the changing audience for and expanding scope of consumer education. Examples of changes which will affect consumer educators include: an aging and increasingly ethnic population; global concerns of resource depletion; pollution; and the communications revolution.

BOTTOM-LINE BENEFITS

John Goodman, President of TARP, and several other business consumer educators offer evidence of bottom-line benefits of consumer education.

Goodman outlines four reasons why business needs to provide more and better consumer education: 1) customers don't read, 2) companies delegate responsibilities to customers, 3) high technology and product complexity make products hard to differentiate, and 4) customers have lower confidence and expectations.

He lists several major benefits which flow from an aggressive consumer education program including: reduced customer problems and liability, increased sales, and positive word of mouth publicity. Roger Nunley of Coca Cola, Marilyn Waits of Bank of America, and Sally Browne of the Consumer Electronics Group offer enlightening success stories based on their business-sponsored consumer education programs.

Whether we're inside or outside the corporation, we are all experiencing the changes facing consumer educators. The issues are broad and diverse, the consumer segments to be reached are rapidly multiplying, and the delivery systems continually evolving.

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[1] Director, Consumer Affairs Office

BUSINESS COMMUNITY COMMITMENT TO IMPROVING QUALITY

SOCAP, as evidenced by this special issue and our efforts to disseminate it to a wide variety of professional audiences is firmly committed to improving the quality and quantity of business-sponsored consumer education materials. This edition of MOBIUS, along with the previously published "Guidelines for Business-Sponsored Consumer Education Materials" are helping to further the cause within the business community. I invite you all to pick up a copy of MOBIUS which also has a copy of "Guidelines" in it.

Business has a responsibility for providing sound consumer education materials, and likewise teachers have an important role in evaluating the appropriateness and effectiveness of these materials.

As part of a panel for the Consumer Federation of America which examined the evaluation of business-sponsored consumer education materials, I prepared a checklist for teachers to use in evaluating such materials.

I'd like to share this checklist with you today, and I invite your comments since many of you are involved with teachers in this regard.

I believe that checklists such as this one, or those developed by ACCI or by teachers could be useful in educating the business-providers about the kinds of materials that are most likely to find their way into the classroom.

GUIDELINES FOR TEACHER EVALUATION OF CORPORATE-SPONSORED CONSUMER INFORMATION/EDUCATION MATERIALS

How, if at all, will the fact that a corporation has provided the consumer information/education material affect students and/or the overall outcome of the educational experience?

Can the teacher effectively use the corporate-sponsored material as a resource, and provide additional information where needed?

CORPORATE IDENTITY

- Will the corporate identity detract from the educational experience?
- How prominent is the logo and company name?
- How might the degree of prominence affect the students?

PRODUCT RELATIONSHIP

- How promotional of the company's products is the information?
- Can generalized facts or concepts be learned from the information?
- Will a direct product relationship have any effect on the students' learning experience?
- Can the material be used without seeming to endorse the company or its products?

CONTROVERSIAL ISSUES

- Are all major perspectives on the issue presented in a balanced, complete and objective manner?
- If the corporate information presents primarily the company's perspective, is additional information available on the other perspectives for balance?

CREDIBILITY

- What is the company's reputation as a source of consumer information/education material?
- Are any educational consultants who assisted in the material's development or evaluation listed?
- Is the material co-sponsored by a government agency, thereby indicating a balanced treatment of the topic?

EDUCATIONAL DESIGN

- Are the objectives clearly stated or apparent in the material?
- Are major concepts and generalizations stated or apparent?
- Is the language non-discriminatory, avoiding stereotypes of age, sex, race, etc.?
- Are learning activities appropriate, creative and flexible?
- Are evaluation techniques appropriate, creative and diagnostic?

A NEW AGENDA FOR CONSUMER EDUCATION
A CHALLENGE TO ACCI

Mel Zelenak, University of Missouri--Columbia[1]

I'd like to express my appreciation to Rosella Bannister and the Consumer Education Committee for offering me this opportunity to visit with you this morning.

I have been asked to briefly update this audience on the current status of the National Coalition for Consumer Education. I'd like to also issue a challenge to all of us in ACCI to lend additional support for efforts in consumer education, specifically at the secondary level.

There may be a few of you who are not familiar with the National Coalition for Consumer Education. The Coalition was established in 1981 with an original objective to save OCE funding. Indeed OCE did survive the additional year in part because of the Coalition's network. The Coalition's goals include:

* to promote consumer education at the national and local levels

* to provide a communications network for those involved in consumer education

Regarding the current status of the National Coalition I'd be less than candid if I didn't report that it is in deep trouble. At our most recent Coalition Board meeting it was affirmed that the National Coalition had no money. Indeed, it appears its liabilities now surpass its assets. It was necessary to close the Washington office and transfer the everyday operations to Dave Schoenfeld, President of the Coalition. Dave is currently a visiting professor at the University of Arizona.

There is some hope that funds can be secured to allow the Coalition to survive. Let me add that other organizations (including ACCI) have had similar financial problems and many of these organizations have survived and prospered. At any rate, that is the negative, albeit a major one.

The positive is that it appears that a need exists for the Coalition. In my preparation for this report I contacted Mr. Schoenfeld and he noted that he has received a "tremendous amount" of encouraging letters regarding the need for the Coalition, appreciation for its accomplishments, and many requests for assistance. The results of the survey distributed to State Coordinators suggests that the vast majority felt a continued need for Coalition-type activities exists.

The Coalition has over 3,500 participants and has state coordinators in all 50 states. Initially, this network was formulated quickly and with relatively little effort and this further lends support to the idea that a need is evident for Coalition-type activities that assist secondary consumer education teachers.

If the Coalition survives, its direction will probably be reformulated based, in part, on the results of the survey. There is probably a need to reestablish the Washington area office if a mission of the National Coalition continues to be to affect public policy.

The State Coordinators Annual Meeting that has typically been held in the spring has been postponed but not cancelled at this time. Dave has hope that the meeting can be held in September or October.

Approximately $1,000 in unsolicited funds have been offered recently. Marty Peterson is in the process of sending solicitation requests.

To iterate, the National Coalition is in deep trouble because of financial problems, but it appears evident that a need exists for a national organization that has as one of its prime functions to support consumer education at the secondary school level.

Let me turn to an organization that is not experiencing financial problems and is fulfilling many professional needs. That organization, of course, is ours, ACCI.

ACCI has long been recognized as a leader in consumer education. In addition to our regular publications JCA, Newsletter, Proceedings, etc., we've established over a dozen student chapters, developed efforts in indexing the Journal and Proceedings, completed a history of ACCI, established education, research, and career committees, and are sponsoring a special international conference on research in the consumer interests. I can obviously offer much more regarding our accomplishments -- but my point is that we have much for which to be proud.

I must admit, however, that there have been criticisms of us. As Executive Director of ACCI for five enjoyable years, I received various verbal and written complaints about our organization. Virtually all of these complaints were easy to counteract and most were based on misperceptions (I could give examples if you like). However, the one inquiry that I heard quite frequently and that I felt was justified was that ACCI had little direct impact and provided little assistance to consumer educators at the secondary level.

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[1] Associate Professor

ACCI at that time had over 100 secondary members and had several times that number at our membership peak in the 1970's. Currently we have only 31 secondary members, some of whom are not classroom teachers. On a percentage basis, that is the area where we have experienced our most substantial decline in membership during the past decade.

At any rate, my response then was that ACCI was indirectly assisting that secondary audience and that we did not have the resources to be all things to all people. Additionally, I noted, consumer education teachers at the secondary level had the Office of Consumers' Education, the Consumer Education Resource Network (CERN), many viable state departments of education, other organizations such as AHEA, NBEA, and even the Joint Council on Economic Education on whom to rely.

Perhaps my response was a reasonable one at that time. Of course, now OCE and CERN are gone. The Reagan Administration offers little more than rhetoric support of consumer education, and I believe universally state departments of education have reduced commitments to consumer education. Organizations like AHEA, NBEA, and the Joint Council have reduced their consumer education efforts for secondary teachers, albeit it may be effectively argued that these groups really were never strong supporters of consumer education. As I noted earlier, the National Coalition, perhaps the best support base for classroom teachers, may well be near its demise. In many states consumer education and educators are, or are soon to become, virtually non-entities.

As an organization, we in ACCI may well be in a position to offer additional support for this forgotten audience. ACCI is fiscally secure, albeit we anticipate having a small deficit this year. Generally, our major services are in place and are essentially institutionalized. The new major projects that we have undertaken such as the research conference are generally self-supporting and are being coordinated by only a few members. I believe that as a group, those of us in ACCI have a vested interest, but far more important, an ethical interest in assuring that our colleagues at the secondary level are offered assistance in those areas where we can be of value. I hasten to add that I'm not suggesting that ACCI should necessarily offer much more of a financial commitment to the Coalition than we currently offer. I am suggesting that it is reasonable for us to offer more in kind support to the Coalition and to consumer education teachers. If the Coalition folds, we should consider what role ACCI should serve in filling the void.

All of us on this panel have ideas as to how we could better assist classroom teachers and the Coalition, and we would be delighted to share these ideas with you. However, part of our goal today is to solicit ideas from you regarding possible projects that all of us can undertake under the banner of ACCI. These ideas will be discussed by us and the Consumer Education Committee.

A few caveats -- First as Treasurer of ACCI, I do have some concern about our finances. Indeed, we have experienced relatively minor deficits in the past few years, and expect to experience one in the next year. Again, however, our overall fiscal situation is good. My point is that an idea that you propose that would require a massive expenditure of money or individual member's time probably would be difficult to promote to our Board and to our membership.

However, this caveat must be tempered with another. That is, let us all beware of the WSA's -- my terminology for those in any organization who seemingly appear to wait to pounce on any new idea. These WSA's, or Worst Scenario Advocates, for whatever reason, nobel or not, apparently feel that their mission in life is to perpetuate mediocrity. WSA's answers to good ideas are often: "It was tried 10 years ago, it didn't work then, it won't work now," or "That duplicates what X Organization is supposed to be doing," or "It is true that ideas A - Y are acceptable but Z is not; therefore, we should not cooperate." Let's beware of the Worst Scenario Advocates because that approach may not be viable in our quest to further develop and improve consumer education.

In brief summary, the National Coalition for Consumer Education is having fiscal problems. It is evident a need exists for Coalition-type activities. There appears to be diminished support for consumer education teachers at the secondary level. ACCI may well be in a position to provide the necessary support base either assisting the Coalition or if the Coalition folds, to consider how we can help fill the void. We want your suggestions that are cost effective. Our Committee believes that working cooperatively internally and perhaps externally we will help meet ACCI's goal — that of promoting the interest of consumers through consumer education.

ENVIRONMENTAL PROTECTION: BRINGING ENVIRONMENTALISTS & CORPORATIONS TOGETHER

Sheila Harty, National Wildlife Federation, Washington D.C.[1]

Do you know what makes a good dance partner? A good dance partner is someone who "gives weight." You know, you can feel the weight of your partner's shoulders and torso balanced against your own weight in a good swing. You can't get a good swing unless your partner gives weight against you. Otherwise, it feels like a limp handshake. In fact, you will limit momentum and throw your partner and yourself off balance if you fail to give weight.

All relations need to apply this principle--social exchanges, marriages, political debate, and commercial affairs. If you don't give your fair share of weight, the relationship will be imbalanced. For a political system to work, citizens have to vote, petition, and organize coalitions. For an economic system to work, consumers have to pay taxes, direct their investments, voice complaints, and demand quality.

HISTORY AND PROGRESS

It is exactly this "giving weight" over issues like polluted water, dirty air, toxic wastes, and endangered species--including ourselves--which has been the history of environmental action. Through consequent litigation, legislation, education, and publicity, environmentalists have gained ground, credibility, and respect. We have also succeeded at a value change in society.

A cultural consciousness on environmental health and safety has been solidly raised and institutionalized. Nevertheless, there has been a resistance to concede any progress or to acknowledge any commonality to industry in pursuing these same environmental goals. Yet the convincing persuasion of environmental values and consequences has won advocates within industry. Some Chief Executive Officers (CEOs), engineers, and managers have learned--admittedly, sometimes by force of law, catastrophe, or adverse publicity--that anticipation and prevention is the more intelligent, and often the more profitable, means of doing business.

The 3M Company, for example, has made a reputation for itself through its 3P Program (Pollution Prevention Pays) in publicizing and encouraging technological innovation and resource recovery in-plant to reduce pollution and pollution treatment costs.

Monsanto Chemical Company initiated a voluntary disclosure policy after the Bhopal incident for any press or community groups to have access to information on the chemicals and their health effects manufactured at their plants.

Other companies' CEOs have also shown leadership in getting industry to be more self-conscious and accountable. Robert Anderson of Atlantic Richfield, William Norris of Control Data, David Roderick of U.S. Steel, Bruce Smart formerly of Continental Group, as well as Lewis Lehr of 3M, and Lou Fernandez of Monsanto. These are industry partners we can dance with.

THE NATIONAL WILDLIFE FEDERATION

The National Wildlife Federation (NWF), under its CEO Jay D. Hair, has risked changing the traditional adversarial posture of an environmental group. We have initiated a non-fundraising corporate outreach program to build relationships between environmentalists and industrialists. We call it "corporate detente." As the nation's largest conservation education organization, the NWF has sufficient weight of its own to be an aggressive dance partner with U.S industry on crucial resource management problems.

NWF has over four million members and subscribers throughout 51 state affiliates and 6,000 local conservation organizations. Such a federation represents a membership of little old ladies who paint flowers and good-ole boys who want an elk in their freezer. Our budget, supported by this diverse membership, is about $40 million with about 500 employees. The membership tends to be politically conservative compared to other environmental organizations, but it represents 80% of the American public that supports a conservation organization.

Where Sierra Club relies on lobbying efforts and the Natural Resources Defense Council relies on litigation, the National Wildlife Federation relies on multi-disciplinary programs including lobbying, litigation, education, publications, and a series of professional SWAT teams under our Resources Conservation Department. Each team is composed of at least a scientist, lawyer, and lobbyist in several substantive issue areas: Pollution and Toxics, Wildlife and Fisheries, Energy and Public Lands, Water Resources, Legislative Affairs, International Programs, Special Projects, and the new corporate Initiatives Division of which I am Director--but the only theologian.

NWF has advanced the idea that we cannot succeed at the goal of conservation and resource management without the ability to work with corporate America. Industry decisions have more impact on the environment than those of environmental organizations. Industry also cannot succeed without strong public support for its programs and products.

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[1] Director of Corporate Initiatives Divison

CORPORATE OUTREACH

Confrontational politics have raised the issues; now cooperation is needed to solve them. Thus, the NWF has engaged a dialogue with industry for conflict resolution. In this spirit of examining shared goals, the NWF initiated the Corporate Conservation Council in 1982 as a quarterly forum with representatives from a dozen different industrial corporations. This Council aims to seek mutually acceptable solutions to a variety of natural resource dilemmas.

Initially, everyone participating felt at some risk. But mutual risk can be the basis of mutual trust. NWF feels strong enough in its membership and its programs to enter into this dialogue without fear of being compromised. I, myself, come from ten years in the public interest community as a Consumer Education Specialist with Ralph Nader. I hear suspicions from my colleagues about "selling out" or "being naive." But, not surprisingly, the industry representatives with whom we are working hear the same from their colleagues. Compromise solutions will never get a standing ovation. Or, as Bert Lance remarked, "the pioneers get the arrows."

COOPERATIVE AGENDA

Our challenge is to define the principles and procedures for the development and use of natural resources that respect sound conservation values.

Our economy is resource-based; but we must learn to live off its interest, not its capital.

Development must occur in a way that insures long-term productivity, diversity of wildlife, and protection of their habitat. Sensitive eco-systems must not be the first to be developed--if ever, they must be the last.

Our common goal in these cooperative efforts is to achieve and maintain a sustainable society with improved productivity and environmental quality.

Our process is to avoid or resolve conflict and to minimize the adversarial confrontations between environmentalists and industrialists.

Last year, our Corporate Conservation Council came out with a Statement of Policy and Practices for the Conservation of Wetlands--not a very sexy or controversial issue, but an important and endangered habitat for waterfowl and other wildlife. All twelve Council corporations signed the statement--Conoco, Tenneco, Duke, Dow, Exxon, Kimberly-Clark, Miller Brewing, North Carolina Phosphate, Monsanto, Southern California Edison, U.S. Steel, and Weyerhauser. The policy statement is now in the process of implementation within those corporations and seeking further endorsements from the wider corporate community. Already 56% of original wetland acreage has been lost to land development by government drainage projects and private landowner conversion projects. Only 8% of the remaining acreage of wetlands is under federal or state protection. The rest is on private lands. Consequently, a private sector initiative for the conservation of wetlands accepts appropriate responsibility while accruing value to the public. (Exxon/Humboldt County)

NWFs Corporate Conservation Council is now taking on the issues of soil erosion and groundwater contamination for consideration of future action. (KK/CCC)

SIMULTANEOUS EMERGENCE

But the National Wildlife Federation is not alone, nor is the Corporate Conservation Council unique, as a "bridge building" precedent. NWF has participated with other environmental organizations in several cooperative dialogue efforts with private industry. What we are actually seeing is "simultaneous emergence," to quote an anthropologist's terms (100th Monkey Phenomena).

Clean Sites, Inc.

Perhaps the best known of the most recent cooperative efforts is Clean Sites, Inc., a non-profit corporation set up to facilitate voluntary private sector clean-up of uncontrolled hazardous waste sites. Clean Sites was a joint effort of the National Wildlife Federation, the Conservation Foundation, the World Wildlife Fund, Monsanto, International Paper Company, Dupont, Allied Chemical, Exxon, Cummins Engine Company, Chemical Manufacturers of America, and past EPA officials.

These participants risked their professional and organizational credibility by even being seen in each other's company. Nevertheless, they bridged this schizophrenia to encourage collaboration on a problem which was too big to solve alone.

The Clean Sites effort has been structured to address three main problems: to encourage division of responsibility for clean-up by waste contributors, to provide technical assistance, and to assure that the problem is solved, not shifted or covered-up. Clean Sites was not initiated to bypass or to replace Superfund law, but to complement and supplement EPA efforts.

After nine months of existence, Clean Sites has evaluated some 80 sites and has actively begun work to coalesce responsible parties on a half dozen.

Groundwater Forum

Another recent cooperative effort is the National Groundwater Policy Forum, initiated by the Conservation Foundation in conjunction with the National Governors Association. This forum has

Arizona Governor Bruce Babbitt as its Chair and David Roderick of U.S. Steel and Jay D. Hair of National Wildlife Federation as Co-Vice Chairs.

This policy forum is designed to reach some consensus on the priority needs for pursuing a coherent national policy for safeguarding the nation's groundwater resources which are impacted by municipal sewage and homeowner septic tanks, agricultural run-off, industrial effluents, and underground storage tanks.

Agro-chemical Dialogue

Another consensus-building effort in which NWF has participated is the Agricultural Chemicals Dialogue Group. This group--with representatives from NWF, Audubon, Conservation Foundation, Natural Resources Defense Council, Environmental Defense Fund, Monsanto, Rohm and Haas, Dow, Union Carbide, American Cyanamid, and the National Agricultural Chemicals Association--aims at developing and implementing voluntary guidelines for U.S. companies to reduce the hazards from misuse of pesticide exports to the Third World.

Product evaluation, applicability, and toxicology of specific products are not the concern of this group. However, successful dialogue on safe use of agricultural chemicals may lead to additional constructive discussions on these other issues.

CF's Dispute Resolution

The willingness of environmental groups to sit down with industry in a good faith effort to find common ground and to resolve disputes has caused concern among some environmental colleagues. Yet such efforts are catching on. Gail Bingham, Director of the Conservation Foundation's Program on Environmental Dispute Resolution, has written a book documenting about 160 voluntary dispute resolution processes in the past decade.

These alternatives to traditional decision-making--such as litigation, arbitration, or administrative procedure--include negotiation, mediation, consensus-building, and policy dialogue. Only about 18% of the 160 case studies involve environmental groups in a cooperative effort with private companies. However, there has been an industry and environment study group on low level radioactive waste, on hazardous waste, on timber management, and on water use. You may know of the Keystone Process in Galveston, Texas, a dialogue effort on waste siting, storage, and treatment.

WICEM

Cooperative efforts have also begun on a global scale. In November, I attended the first World Industry Conference on Environmental Management (or WICEM, as it is being known) in Versailles, France, sponsored by the United Nations Environment Programme in cooperation with the International Chamber of Commerce. This Conference brought together CEOs from major transnational corporations and Prime Ministers and Environment Ministers of governments with representatives from labor and environmental organization in the U.S., Europe, Africa, Latin America, and South East Asia.

The high profile attendance to these problems by responsible officials in concert with their traditional adversaries and developing countries creates a new quality of accountability. The interconnectedness of countries through world trade has forced acceptance of the interconnectedness of consequences and responsibility.

Acid rain may not have been the first environmental problem to cross the border and, indeed, boundary countries have not yet solved it but awareness is now unavoidable and mechanisms have been initiated in attempts to resolve the complex legal and ecological ramifications.

LATIN DANCING

Instead of throwing bricks at our adversaries, we are now wrestling with each other, close up and face to face. Or, to stick with my metaphor, this is more difficult dancing--like the Latin Marengue or the Paso Doble. But it's more stimulating and rewarding in the accomplishment.

Both present and potential threats of litigation, fines, increased regulation, and adverse publicity still loom on the periphery to be called into play. But "corporate detente" is the next generation of environmental politics and it is being used as an initial strategy by many environmental groups.

The Corporate Initiatives Divison of the National Wildlife Federation is not raising funds, we are raising issues. We are trying to use the carrot, instead of the stick. Our goal is to get environmental impacts on equal status with economic considerations in corporate board room decision-making.

We are using the carrot mechanisms for technology transfer and information disclosure. We are setting up forums--or mini-WICEMs--for training mid-level corporate managers, engineers, and MBAs in environmental management. These are all anticipatory and preventive mechanisms to encourage corporations to conserve resources and protect the environment.

We want to publish a "success book" of profitable resource recovery efforts on pollution control technological innovations within industry as a means of recognizing industry initiatives and encouraging more. If we don't reinforce responsible environmental management practices and policies within corporations, and support individual environmental officers of CEOs who are taking these initiatives, such leadership might wane or be mitigated by disgruntlement or skepticism from corporate members within.

One environmental officer from Exxon said to me that he always viewed himself as the "Ralph Nader of Exxon." Working with Ralph Nader as I have since 1975, that analogy struck me as more than amusing. However, that was that man's perception of himself. We need to encourage him and others like him. To work with such corporate leaders is not selling out; it is buying into common values. We can make dance partners out of previously alleged adversaries--and we all know that dancing is better than fighting.

Simultaneous Equations: A Primer[1]

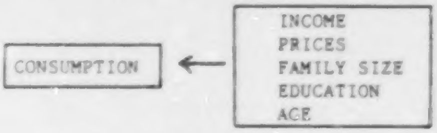
Jennifer L. Gerner, Cornell University[2]

Often the relationships examined in the social sciences have the following structure:

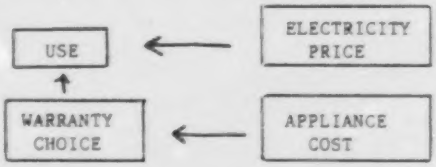
(1) $Y = y(x_1, x_2, \ldots, x_n)$

Here the dependent variable, Y, is caused by the right-hand-side variables, x_1, $x_2, \ldots x_n$. The x's are determinants of Y and are exogeneous variables, variables not themselves determined by Y, nor determined as part of the problem at hand. Statistically, these exogeneous variables are independent of the stochastic error term.

As an example, consider the consumption function. Here consumption is determined by income, prices, and other variables like age, education, and family size. But the causation clearly runs from the right-hand-side variables to the dependent variable and there is not causation running the other direction. The figure below illustrates this relationship.



This sort of set up is appropriate for a great many problems. But there are many other problems where the causal relationships are not so simple. There are many processes that are highly interdependent and these interdependencies make the usual single equation causal model, estimated with ordinary least squares inappropriate. For example, consider the demand for appliance warranty coverage and appliance use[3]. The amount of use of the appliance depends on the cost of electricity, P, and the warranty coverage, W. The warranty coverage depends on the cost of the appliance, M. This gives a distinct behavioral relationship for appliance warranty coverage and appliance use which can be diagrammed as below:



The relationship can be represented by the following two equations:

(2) $U = b_1W + b_2P$

(3) $W = c_1M$

Estimates of a system of this sort obtained using ordinary least squares will be biased and inconsistent. This is true even though the analyst is only interested in a single equation from the simultaneous system, and even though the particular single equation estimated represents "truth".

Such complicated relationships are found throughout the social sciences. Goldberger[4] has summarized the wide range of social science problems, found throughout sociology, psychology, and economics. This paper provides a very elementary discussion of the bias introduced when estimating a single equation from a simultaneous system, and discusses several sorts of simultaneous equation models and the estimation problems associated with them. Other sources, such as Kenny[5] and Cramer[6] provide a more technical discussion.

The Elements of a Simultaneous Equations Model

We begin with a particular set of data which we believe to be generated by some process. That process can be described with several separate and distinct relations, the structural equations. These structural equations may be behavioral, that is they may describe the behavioral relationships between various variables. They may be definitional so that the coefficients of the relationship are known in advance. They may provide identities between various relations. They may describe technical relationships between the variables. In any case, these structural equations describe the causal paths between dependent and right-hand-side variables.

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[1] My colleague, W. Keith Bryant, has provided numerous comments, as usual, invaluable in improving this paper. All remaining errors are, of course, my own.

[2] Consumer Economics and Housing, Associate Professor.

[3] This example is inspired by the problem in J.L. Gerner and W.K. Bryant, "The Demand for Repair Service During Warranty", Journal of Business, 53:397-414, Oct., 1981.

[4] A.S. Goldberger, "Structural Equation Methods in the Social Sciences", Econometrica, 40(6):979-1001 Nov., 1972.

[5] David A. Kenny, Correlation and Causality, New York: John Wiley and Sons, 1979.

[6] J.S. Cramer, Empirical Econometrics, London: North-Holland Publishing Company, 1969.

In the structural equations the right-hand-side variables need not be exogeneous. The determination of a particular right-hand-side variable may be described elsewhere in the model. Thus we have a number of equations with dependent variables, and a number of right-hand-side variables, some of which occur exclusively on the right-hand side as exogeneous, predetermined variables.

Because it is possible that some of the right-hand-side variables are themselves dependent variables in other equations, the interdependencies described by the simultaneous equations system can be quite complex. Often it is necessary to solve these structural equations so that the dependent variables are expresed as functions of the exogeneous variables only. When this is done the new system of equations are called reduced form equations. Below there is a discussion of the relationship between the structural parameters and the reduced form parameters.

Simultaneous Equations Bias

Estimating a single equation as though it were from a single linear equation model, using ordinary least squares, generally results in bias in the estimated parameters because the estimation ignores the information available in the model on the other equations. This sort of bias is called simultaneity bias. It is one good reason why, if a relationship arises out of a simultaneous equations system, the entire simultaneous system needs to be considered in the estimation. The derivation of the bias can be found elsewhere [7]. Here we will concentrate on understanding the intuition of what is going on.

The direct least squares estimate of the coefficients in a single equation of a system of simultaneous equations fails to account for relationships in the error structure between the equations. In addition, the estimation procedure ignores the possibility that some of the independent variables in the estimated equation are really endogeneous to the simultaneous system. When this occurs the right-hand-side variable in question is not independent of the error term. This is the source of the simultaneity bias. Hence the estimates of the coefficients using least squares will be biased and inconsistent. To solve this problem some alternative estimation procedure needs to be employed. As a step in that direction, the simultaneous equations system can be stated in its reduced form, where each of the endogeneous variables are stated as functions of the exogeneous variables only. This, then brings us to the next big problem with which we must deal, identification.

Identification in Simultaneous Equations Models

To begin this discussion consider a deterministic relationship, with no stochastic component. Here as an example consider the demand for appliance warranty coverage and appliance use described earlier in equations (2) and (3):

(2) $U = b_1W + b_2P$

(3) $W = c_1M$

These are the structural equations. They express the structure of the problem. But each equation contains a dependent variable on the right-hand-side. We can solve these two equations to obtain U and W in terms of the exogeneous variables, P and M, only:

(4) $U = d_1M + d_2P$

(5) $W = e_1M +$

where $d_1 = b_1c_1 \qquad e_1 = c_1$

$d_2 = b_2$

These are the reduced form equations and, it is these that we would estimate. Note that equations (2) and (3) could not be estimated by ordinary least squares because the assumption that the covariance between the stochastic error term and the independent variables is zero would be violated. This is because one of the right-hand-side variables included in the use equation is actually a dependent variable. Now the reduced form equations can be estimated. But we are often concerned not with the complicated relationship between the dependent variables and the truly exogeneous variables as seen in equations (4) and (5), but rather with the structural relationship hypothesized in equations (2) and (3). If this is the case, then we must determine if the structural coefficients, b_1, b_2, c_1, and c_2, can be "identified".

Identification of the structural equations is the key issue when postulating a simultaneous equations model. If the structural model can be identified then the specific impact of particular changes in exogeneous variables can be seen. In our particular example, the reduced form equations show that changes in the appliance price have an affect on the use. However, the structural equations show the route which this impact follows. If the cost of the appliance, M, changes, there will be an impact on the choice of the warranty, and therefore, an impact on the use of the appliance.

In our example the correspondence between the reduced form coefficients, which are actually estimated, and the structural parameters of interest as follows:

(6) $b_1 = \frac{d_1}{e_1}$

(7) $b_2 = d_2$

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[7] Jan Kmenta, Elements of Econometrics, New York: The Macmillan Company, 1971.

(8) $c_1 = e_1$

Note that there are three reduced form parameters estimated and there are four structural parameters of interest. Thus there is enough information here to solve for the three structural parameters.

This need not be the case. Suppose the choice of the warranty was determined by the amount the appliance is used, U, and appliance prices, M, and the amount the appliance is used is determined by appliance prices and the warranty choice:

(9) $W = f_1U + f_2M$

(10) $U = g_1M + g_2W$

In this structural system the reduced form equations are:

(11) $W = S_1M$

(12) $U = S_2M$

and the correspondence between the reduced form and structural parameters is:

(13) $S_1 = \dfrac{f_1g_1 + f_2}{1-g_2}$

(14) $S_2 = \dfrac{g_2(f_1g_1 + f_2)}{1-g_2}$

But in this system the structural parameters are not identified. That is, we cannot solve (13) and (14) for g_1, g_2, f_1, and f_2. The reason is that the structure of the problem does not provide enough independent information to solve for the realtionship between the reduced form and the structural coefficients. The independent effects of the right-hand-side variables on each of the structural dependent variables cannot be disentangled. This system is underidentified.

Now consider the following modification of the appliance warranty and use system.

(22) $W = t_1Y + t_2M$

(23) $U = v_1W + v_2P + v_3F$

Here the appliance warranty choice is determined by income, Y, appliance prices, M, and the amount the appliance is used, and appliance use is determined by warranty choice and electricity price. Now the structural equations are:

(13) $W = t_1U + t_2Y + t_3M$

(14) $U = v_1W + v_2P$

The reduced form equations are:

(15) $U = \alpha_1Y + \alpha_2M + \alpha_3P$

(16) $W = \beta_1Y + \beta_2M + \beta_3P$

and the correspondence between the reduced form coefficients and the structural coefficients is:

(17) $\alpha_1 = \dfrac{v_1t_2}{1-v_1t_1}$

(18) $\alpha_2 = \dfrac{v_1t_3}{1-v_1t_1}$

(19) $\alpha_3 = \dfrac{v_2'}{1-v_1t_1}$

(20) $\beta_1 = \dfrac{t_1t_2v_1}{1-v_t} + t_2$

(21) $\beta_2 = \dfrac{t_1t_3v_1}{1-v_1t_1} + t_3$

(22) $\beta_3 = \dfrac{t_1v_2}{1-v_1t_1}$

Here we have five structural parameters but six reduced form parameters. In a sense there is too much information here. There will be multiple ways to solve for some of the structural parameters. When we introduce stochastic error to each of the reduced form equations and estimate then there is no particular reason why the reduced form parameter estimates should yield the same solution for the structural parameters using the multiple ways to solve for the structural parameters. This system is overidentified.

There are several points to make about identification before we discuss estimation problems. First, identification is a property of particular structural coefficients. It is quite possible to postulate a model where some structural coefficients are identified, others are overidentified, and still others are underidentified. Second, the lack of identification is a serious problem because it implies that, if the structure of the problem is the one represented by the structural equations, then an infinite number of possible values for the structural parameters could give rise to the particular data we observe. Finally, the presence of stochastic error makes the problem of overidentification as difficult as underidentification. With stochastic error there is no particular reason why the actual estimated coefficients will yield the same values for the structural parameters. So some way must be found to resolve conflicting values or to assure a single value for the structural parameter. Of course, to the extent that the structural parameters are of interest, underidentification is so serious a problem as to prevent estimation of the system at all.

Estimation of Simultaneous Equations Models

There are a variety of choices for estimation of simultaneous equations models, and which is the most appropriate depends a great deal on the structure of the particular simultaneous system. I will not detail various estimation procedures here, but rather catalogue them with some discussion of the situations for which various techniques are appropriate.

Indirect least squares is the most straight forward and simple technique for estimation of a simultaneous equations system. This technique is simple to describe. Simply use ordinary least squares to estimate the reduced form version of the simultaneous equations system, then use these estimates to solve for the parameters of the structural equations. The reduced form equations can always be estimated using ordinary least squares, but it may not be possible to obtain the parameters of the structural equations. If the structural equations are underidentified or over identified, it will not be possible to retrieve them from the reduced form estimate. That is, if the structural coefficients in the simultaneous equations system are just identified so that there are no identification restrictions, that is, there is only one way to solve for the structural parameters, then indirect least squares is an appropriate technique for estimating the reduced form coefficients from which the structural coefficients can be calculated.

In some social science work it is of interest to examine the factors affecting a particular dependent variable. Even if such a problem is properly a simultaneous equations model, the single equation reduced form equation may be of interest. If this is so, the estimated obtained using ordinary least squares and the single equation from a reduced form system will be of interest. The only caveat here is that if some change occurs which has an impact on the structure of the system, the reduced form estimates will not reflect this.

Sometimes when only a single equation of the simultaneous system is of interest, it is more convenient to use an instrumental variables approach to estimating a structural equation. This approach involves locating a truly exogeneous variable, correlated with the right-hand side dependent variable, to be used as an instrument. Professor Stafford's paper in this session deals with this estimation strategy in greater detail. Here it is sufficient to note if the system of simultaneous equations is exactly identified, the instrumental variable approach to estimation will yield estimates equivalent to the indirect least squares approach.

When the structural equations of the simultaneous system contain only exogeneous variables so that the structural equations and the reduced form equations are identical we have a system of equations sometimes referred to as a seemingly unrelated system of equations. It is, of course, exactly identified, and can be directly estimated using ordinary least squares.

Unfortunately, few systems of equations are exactly identified. It is much more likely that the structural parameters will be overidentified. When overidentification occurs identification is, at least in principle, possible by recognizing the restrictions that are necessary on the reduced form parameter estimates to assure that a particular structural parameter takes on a single value. Often if this is done the resulting estimating equations are not linear in the parameters and so an estimating technique which assumes linearity in the parameters, like ordinary least squares, is no longer appropriate. Maximum likelihood estimation techniques are available for estimation of such systems. The disadvantages of maximum likelihood techniques are several. The small sample properties of the estimators are not well known. The maximum likelihood estimates are extremely sensitive to sample size and also to the distributional assumptions made about the error term. Hence the parameter estimates using maximum likelihood are not very robust.

Another alternative for estimating overidentified systems is to use two stage least squares estimation. The problem with estimating the simultaneous system directly is that some of the structural equations involve endogeneous right-hand-side variables, and so these variables are correlated with the error term. Two stage least squares is a technique for purging the right-hand-side endogeneous variable of this correlation. This is done by first estimating the reduced form equations, using ordinary least squares, then using the predicted values of the endogeneous variables in question as independent variables in an ordinary least squares estimation of the structural equations.

Two stage least squares can be used in estimating systems of equations that are either exactly idenfitied, yielding estimates identical to the indirect least squares estimates, or systems that are overidentified. When a parameter is overidentified, the two stage least squares procedure yields a single value for the overidentified parameter. Two stage least squares is equivalent to an instrumental variables technique.

Finally, consider Linear Structural Relations (LISREL) as an approach to estimation. LISREL is really not a separate estimation technique, but, rather, refers to a particular piece of computer software used for estimating structural equations models, where there may be some errors in the variables. The term LISREL has come to refer generally to the estimation of models which arise in nonexperimental situations and which are characterized by causal relations and errors in variables which may arise because of measurement problems, or because the theoretical variables are not directly observable[8]. The approaches to simultaneous equations estimation discussed above are all part of the general estimation procedure sometimes called LISREL.

Conclusions

Frequently the particular relationships observed in the problems of interest are more complicated than can be described in a single equation. When this is true simultaneous systems often can be used to describe the relationships of interest. But if the relationships of interest are best described by a set of simultaneous equations, care must be taken in estimation of these equations. Although the usual ordinary least squares estimation procedure may be appropriate, it may also produce biased parameter estimates. If so, the researcher can consider using other techniques, depending on the structure of the problem at hand.

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Footnotes

1. My colleague, W. Keith Bryant, has provided numerous comments, as usual, invaluable in improving this paper. All remaining errors are, of course, my own.

2. Consumer Economics and Housing, Associate Professor.

3. This example is inspired by the problem in J.L. Gerner and W.K. Bryant, "The Demand for Repair Service During Warranty", *Journal of Business*, 53:397-414, Oct., 1981.

4. Arthur S. Goldberger, "Structural Equation Methods in the Social Sciences", *Econometrica*, 40(6):979-1001, Nov., 1972.

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MEASUREMENT ERROR, INSTRUMENTAL VARIABLES, AND SIMULTANEOUS EQUATIONS

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ABSTRACT

Instrumental variables are a solution to bias and inconsistency in OLS coefficients when X and e are correlated. When empirical results are counter to accepted theory or qualitative differences exist between OLS and IV coefficients, correlation between X and e is probable. Resulting bias may be high when R squared is low. Variables from another time frame or two SLS estimates are suggested for use as instruments.

A random variable Z is an "instrumental variable if it is correlated with an explanatory variable X and uncorrelated with the residual e for the estimation equation that includes X. Use of instrumental variables is one solution for the biased, inconsistent regression coefficients obtained when an explanatory variable is correlated with the residual e for the model. Correlation of X and e is relatively common in the field of family economics/home management and instrumental variable estimation is a universally applicable, relatively easy solution. In this paper I first describe common situations in family economics/home management when an explanatory variable is correlated with the residual. In the next section I describe the symtoms indicating existence of the problem and give two examples with their attendant symptoms. In the last section I describe how use of instrumental variables solves the problem and discuss selection of an instrumental variable (IV).

When does the need for instrumental variables arise?

The need for instrumental variables arises when the explanatory variables in an estimation model are not independent of the residual. Recall that ordinary least squares (OLS) regression coefficients are the best linear unbiased estimators (BLUE) when four conditions are met:

1) $E(e_i) = 0$
2) $V(e_i)$ = Sigma squared
3) e_i and e_j are independent
4) e_i and X_j are independent

Of these conditions or assumptions, the last is the most critical. When X is stochastic, OLS regression coefficients are still linear unbiased estimators; only efficiency is lost. When multicollinearity among the explanatory variables is present, as long as perfect multicollinearity is avoided, OLS regression coefficients are still consistent. However, when the last condition is violated and the explanatory variables are correlated with the residual OLS regression coefficients are biased and inconsistent [3, 5, 9].

Correlations between the explanatory variables and the residual arise from several sources. Four are listed here: 1) specification error, 2) autocorrelation, 3) simultaneous equation problems, and 4) measurement error in the explanatory variable(s). Instrumental variables offer a solution for all four sources; however, other solutions are most often recommended for the first two so I have concentrated on the last two.

If the estimation model omits some relevant explanatory variables and some of the omitted variables are correlated with the included explanatory variables, then the residual contains some omitted variables and the residual can be correlated with the explanatory variable(s). This source of error is called specification error. The usually recommended solution is reexamination, and respecification, of the model [5]. Although instrumental variables can be used to solve the problem, if you can find a variable to be a good instrument you can usually just as easily improve specification of the model.

When lagged dependent variables are used as explanatory variables the residuals can be autocorrelated. If the residuals are autocorrelated because of serial correlation among omitted variables included in the residual there is correlation between the residuals and the explanatory variables [5]. Although this source can arise in cross-sectional studies such as the causes of poverty or the economic status of divorced women, it arises primarily in analyses of time series data. Most econometric texts devote a chapter or more to remedies for the problem. There are tests for the existence of serial correlation and the recommended remedy depends upon the nature of the autocorrelation [3, 5, 9]. Although instrumental variables offer a solution, they are seldom used because of the difficulty in finding good ones.

Many economic phenomena such as market price patterns evolve through mutual adjustment among a multitude of conditions and impulses. Any single relationship or equation is just one strand from the whole fiber. When the other closely related processes are assumed to be fixed, the relationship under study may seriously misrepresent the joint processes even if the relation itself is sensible and verifiable. I have labeled this situation simultaneous equation problems. It is the most common example of correlated regression and residual [9].

Demand and supply models are a classic example.

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If the demand function is $q = ap + e$, e refers to shifts in the demand function. When supply is less than perfectly elastic, shifts in the demand function produce changes in price. Therefore price p and the residual e are correlated.

Another classic example is estimation of consumption functions. To illustrate, take Wonnacott and Wonnacott's [9] very simple national income model of two equations

$$C = a + By + e \qquad (1a)$$

$$Y = C + I \qquad (1b)$$

where C is consumption, Y is income and I is investment. Further, assume I is an exogenous variable, whether fixed or random, which means that I and e are statistically independent. The model is complete since it has two equations and two unknowns. The parallelogram $P_1P_2P_3P_4$ in figure 1 represents the scatter of C and Y a person would observe, remembering that all observations must satisfy both equations. For purposes of illustration, values of e and I were arbitrarily set at $e = \pm 50$ and $I = 100, 250$. A person trying to fit an OLS regression line to the data in figure 1 would get the bold faced line. Having constructed the scatter of observations, it is easy to see the OLS line is upwardly biased.

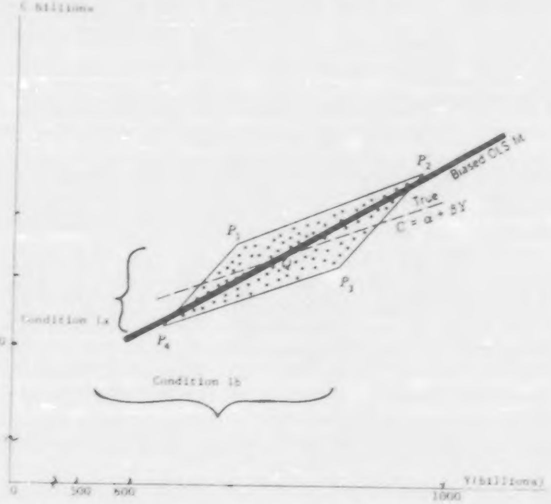

Figure 1. Biased, Inconsistent OLS Consumption Function

The last example is measurement error. In this case an explanatory variable is measured with error and we observe $X = X + u$ instead of X. Consequently, we estimate

$$Y = B(x - u) + e \qquad (2a)$$

$$= BX + (e - Bu) \qquad (2b)$$

Since $x = X + u$ the residual in the estimation equation $(e + Bu)$ is correlated with the explanatory variable x. Once again the classic example is a consumption function. Measured income in any one year may contain a random "transitory" component. If this "transitory" component is viewed as a random error, its presence means cross section estimates of the marginal propensity to consume are bound to be downwardly biased [7].

How serious is the problem instrumental variables correct?

The seriousness of the problem depends on the particular research, but there is one generel result which helps gauge the seriousness of the problem. Even if the correlation between X and e is high, if the variance of the error is small relative to the variance of the explanatory variable then the bias in OLS estimators is asymptotically negligible. Wold called this the "proximity theorem." Wold and Faxer [8] generalized the result of multiple regression. Fisher [1] proved the same result for more complicated models. All of which means that the higher your R squared the smaller your bias in OLS coefficients when X and e are correlated. If you have a high R squared and a large sample the bias is negligible even if X and e are highly correlated. If your research is cross sectional the "proximity theorem" is cold comfort, since a relatively high R squared for a cross sectional study is still in the lower portion of the range for an R squared.

How do you detect existence of the problem?

In the absence of tests for independence of explanatory variables and the residual, detection of the problem is a professional challenge. Empirical indications fall into two categories which I call "contrary" results and "qualitative differences." "Contrary" results are OLS regression coefficients whose sign or size is counter to either theoretical expectations or the constraints of existence in a real world. An upward sloping demand curve is an example of a result which is counter to theoretical expectation. In Table 1, Column 1 are OLS regression coefficients for a household food production function. The significant negative regression coefficients for spouses' labor are an example of "contrary" results. We had expected non negative coefficients for the labor variables. "Contrariness" is no help when the theoretical sign is indeterminate. Neither is it a help when there is no theory to guide the analysis.

When reference to theory or reality can not help determine existence of the problem one can still resort to "qualitative differences." In this case you estimate the model using both OLS and IV, and compare the resultant coefficients for qualitative differences, differences in which variables are significant and/or significant differences in signs. In Table 2 are OLS and IV estimates for the derived demand for wife's daily time in household work. Godwin [2] has correctly pointed out the appropriateness of simultaneous equation estimation methods for examining family behavior or individual behavior within families. The equations in Table 2 were specified to equate single equation and simultaneous equation estimation of demand functions for wives and husbands.

TABLE 1. Cobb-Douglas Production Functions for Number of Food Items Prepared at Home Daily

	OLS Regression Coefficients[a] n=2100	IV Regression Coefficients[b] n=2039
Natural logarithm of homemakers' daily food preparation hours	.195*	.166*
Natural logarithm of spouses' daily food preparation hours	-.067*	.018*
Top of range used	.625*	1.026*
Oven used	.180*	.245*
Broiler used	.123*	.215*
Microwave oven used	.143*	.300*
Charcoal grill used	.145*	.132*
Small appliance used	.326*	.478*
Urban residential location	-.035*	-.040
Constant	1.486	.414

*Significant at the .05 level or less

[a] Estimated using the regression procedure in SAS

[b] Estimated using the SYSREG procedure in SAS

TABLE 2. Logistic Derived Demand Functions for Wives' Daily Time in All Household Work

Explanatory Variables	OLS Regression Coefficients[a]	IV Regression Coefficients[b]
Intercept	-1.56272725	-1.52609
Husband's daily employment time	0.00022225	0.00007
Wife's daily employment time	-0.00088603*	-0.00098*
Family unearned income	-0.00056228	-0.00059
Husband's wage rate	-0.00981398	-0.01027
Wife's wage rate	-0.01749022	-0.01412
Wife's age	0.00114420	0.00108
Wife's education	0.00996847	0.01198
Husband's education	-0.02279034*	-0.02493*
Wife ill	-0.00535518	-0.01793
Husband or child ill	-0.14065288	-0.15609*
Family life cycle stage two	0.36465641*	0.34488*
Family life cycle stage three	0.14454766	0.14264
Family life cycle stage four	0.16027720	0.16079
Family life cycle stage five	-0.31270264*	-0.32575*
Number of children X stage three	0.04015017	0.04133
Number of children X stage two	0.16613383*	0.16138*
Number of children X stage four	0.05233625	0.05006
Number of rooms	0.00659998	0.00515
Lot size	0.00946938*	0.01016*
Monday	0.66904562*	0.77112*
Tuesday	0.70836653*	0.81215*
Wednesday	0.78042095*	0.87583*
Thursday	0.64449473*	0.74032*
Friday	0.53154798*	0.62235*
Saturday	0.42045484*	0.44377*

*Significant at .05 or less

[a] Estimated using the regression procedure in the Statistical Package for the Social Sciences (SPSS)

[b] Estimated using the SYSREG procedure in the Statistical Analysis System (SAS)

The question of correlation of explanatory variables and the residual arose because of the inclusion of the wife's and husband's daily employment times as explanatory variables. In fact, the equations were estimated to examine whether employed wives viewed their daily employment time as preallocated or fixed when making decisions about how much time to spend in household work. If they do, Pollak [6] has shown that the quantity of the preallocated commodity, rather than its price, is the appropriate explanatory variable in a demand function. If Pollak's theory were appropriate for the analysis of daily time data no correlation with the residual was introduced by inclusion of employment time as an explanatory variable. If Pollak's theory were not appropriate, employment times were correlated with the residual. "Contrariness" was not a useful criterion because the relevant question was the appropriateness of the theory, not consistency with the theory. Therefore both estimation methods were used and the results were compared for "qualitative differences." Estimated daily minutes usually worked was the instrumental variable for daily employment time in the IV estimation. Comparison of the regression results finds all signs the same and all significant variables the same. In this case I concluded there were no qualitative differences; instrumental variable estimation was unwarranted; Pollak's theory was appropriate.

On the other hand, looking back at Table 1 and comparing the IV coefficients with the OLS coefficients we see qualitative differences. The significant negative OLS coefficient for spouse's labor becomes a significant positive IV coefficient. The significant OLS coefficients for charcoal grill and urban residential location become insignificant in the IV estimation. Instrumental variable estimation appears warranted. The empirical evidence supports the belief implicitly expressed in the IV estimation, that household production functions reflect both technology and the behavior of the decision maker.

How do IV's eliminate bias and inconsistency?

To obtain an IV regression coefficient it is necessary only to take the covariances of the instrumental variable with the variables in the model and solve for the regression coefficient. Given a model

$$Y = BX+e \qquad (3)$$

and an instrumental variable Z, taking the covariance of Z with the variables in (3) yields

$$S_{zy} = BS_{zx}+S_{ze} \qquad (4)$$

dividing equation (4) by S_{zx}, the covariance of the IV and the explanatory variable, yields the instrumental variable regression coefficient B_{Iv} in (5).

$$B_{Iv} = (S_{zy}/S_{zx})-(S_{ze}/S_{zx}) \qquad (5)$$

By construction, the covariance of the instrumental variable and the residual, S_{ze}, equals zero so the last term in (5) drops out and

$$B_{iv} = S_{zy}/S_{zx} \qquad (6)$$

By comparison when X and e are correlated the OLS regression coefficient is

$$B_{ols} = (S_{xy}/S_{xx})-(S_{xe}/S_{xx}) \qquad (7)$$

If the variable Z chosen as an instrumental variable were used as a proxy rather than an IV the proxy regression coefficient B_p would be the ratio of the covariance of Z and Y to the variance of Z.

$$B_p = (S_{zy}/S_{zz})-(S_{ze}/S_{zz}) \qquad (8)$$

In this case the last term in (7) also equals zero by construction, so bias is eliminated. However, any explanatory capability of the theoretically preferable or correct explanatory variable X has also been eliminated. We see from (6) that IV estimation is a means of eliminating bias and inconsistency while retaining some of the explanatory capability of X. It is also clear from (5) that the ability of an instrumental variable to solve the problem of OLS bias and inconsistency rests on its independence from the residual. In other words its usefulness rests on the good judgment of the researcher.

How do you select an instrumental variable?

Both Maddala [5] and Wonnacott and Wonnacott [9] state that selecting a good instrumental variable is a professional judgment. In fact they call it the chief problem with instrumental variables. Two basic strategies can be followed to select an instrumental variable. The first strategy entails use of a single exogenous variable. The second strategy entails use of multiple exogenous variables to derive an estimated value for the "correlated" explanatory variable.

One strategy is to select a single exogenous variable as an instrumental variable for the "correlated" explanatory variable. Since the IV needs to be highly correlated with the explanatory variable try to find an alternative measure in the data set for the same concept measured by the "correlated" explanatory variable. Since the IV needs to be uncorrelated with the residual a frequent strategy is to select a measure from another time frame, one which is clearly predetermined or has no influence on the current time frame in the model. In the model for wife's daily household work time (Table 2) average daily employment time last week was used as the instrumental variable for the record day's employment time. Liviatan [4] has suggested this strategy for estimating consumption functions. He suggested using another year's income as an IV for current income.

Another strategy is to construct an estimation equation for the "correlated" explanatory variable from several excluded exogenous variables. This strategy can be used when the first strategy is not feasible. The instrumental variable for the actual value of the "correlated" variable is its predicted value. In the household production function example (Table 1) use of the first strategy was not feasible since there was no reason to think that labor in food preparation during another time period would be related to the record day's food preparation. Rather, labor supply equations were estimated for wife's labor and husband's labor and predicted labor supply was used as the IV for actual labor. The estimated homemaker's labor supply equation was natural logarithm of homemaker's daily minutes = 3.846-.001 homemaker's usual daily employment hours -.012 homemaker's hourly wage rate +.028 homemaker's education +.2857 if Monday +.223 if Tuesday +.186 if Wednesday + .033 if Thursday -.259 if Friday and -.055 if Saturday. The estimated spouse's labor supply equation was natural logarithm of spouse's daily minutes = -2.255 -.032 spouses's usual daily employment hours +.020 spouse's hourly wage rate +.098 spouse's education -.789 if Monday -.627 if Tuesday -.535 if Wednesday -.716 if Thursday -.042 if Friday and +.157 if Saturday. Most of you will recognize this latter approach as two-stage least squares. In fact, two-stage least squares is a special case of instrumental variable estimation.

SUMMARY

An instrumental variable Z is one which is correlated with an explanatory variable X and uncorrelated with the residual e for the model. Given the model Y = BX+e and instrumental variable Z, an IV regression coefficient is defined as the ratio of the covariance of Z and Y to the covariance of Z and X. Use of instrumental variables is a universal solution for the bias and inconsistency in OLS regression coefficients which result from correlation between the residual for the model and an explanatory variable. Instrumental variable estimation is the recommended solution when the correlation between X and e arises from either simultaneity problems or measurement error in X. The bias is potentially large when the R squared for the regression is not high. Use of IV estimation offers great potential for improving cross section studies since 1) simultaneity and measurement error are the most common causes of correlation between X and e in cross section studies and 2) cross section studies, at their best, have relatively low R's squared.

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SAMPLE SELECTION BIAS:
CORRECTING FOR VARIABLES THAT AREN'T THERE

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ABSTRACT

The potential for sample selection bias threatens both the internal and external validity of consumer research. This paper summarizes the statistical problems associated with indirectly censored samples, outlines the two-equation system that is used to solve these problems, and works through a consumer example of correcting for sample selection bias.

Statistical problems frequently cross disciplinary boundaries. Sociologists, economists, psychologists, and political scientists all face problems of assessing measurement reliability, deciding on appropriate levels of Type I and Type II errors, and determining the generalizability of their empirical results. Yet when a researcher finds a solution to a unique statistical problem, quite often it remains the "private property" of the researcher's field simply because of poor interdisciplinary communication. Sample censoring is an example of such disciplinary provincialism.

Technically, sample censoring occurs whenever some of the observations for the dependent variable that correspond to known values of the independent variables are unobservable. General censoring can be further categorized into two types: direct (or explicit) censoring and indirect (or incidental) censoring [2, p. 388]. Direct censoring occurs whenever observations are excluded because the value of the dependent variable is below some threshold. For example, suppose a researcher wants to examine what factors influence a household's expenditures on durable goods. If households that do not purchase any durables during the period in question are excluded from the sample then direct censoring has occurred. Corrections for direct censoring can be handled in a Tobit framework and those who would like to know more about Tobit are urged to read Jean Kinsey's paper [19]. Indirect censoring occurs whenever the selection into a sample is based on the value of an exogeneous variable that does not play a role in the relationship of concern to the researcher. The statistical problems associated with this second type of censoring and their solutions are the focus of this paper.

THE ISSUE

Recently, economists have devoted a great deal of energy to the issue of censored samples. Yet researchers in other fields by and large continue to ignore the statistical problems presented by these nonrandom sample selection criteria. In the economics literature, the most frequently cited example of incidental sample censoring (or sample selection bias as it is sometimes called) concerns the estimation of market wage rates for married women. When a woman is employed outside of the home the researcher can observe her market wage rate. However, what happens if the woman is a full-time homemaker? In that case, observations on the variable of interest (i.e., the wage rate that the homemaker could generate in the marketplace) are not available. Deletion of these missing observations from the analysis result in sample censoring because the factors that determine a woman's labor supply are for the most part the same factors that influence the market wage she commands.

Other examples of sample censoring are more subtle. Consider the researcher who is interested in identifying how drinking habits affect the number of traffic citations received over the preceding five years. If its the case that people who drink heavily are also more likely to be in fatal traffic accidents, then the researcher will have a problem with incidental censoring. The researcher will not be able to observe the number of traffic citations for those individuals who died in traffic accidents and thus the available sample will be censored.

Another case of censoring arises for the researcher interested in identifying the impact of various life cycle factors on desired housing expenditures. Most models view desired housing expenditures to be a function of a series of life cycle factors that are known for all households [4, 8, 24, 28]. However, suppose the researcher only has data on desired expenditures for those households that own their home. Renters have been systematically excluded because they have missing data on desired housing expenditures. And their exclusion corresponds to known values for life cycle characteristics that are associated with both housing tenure and desired level of housing expenditures.

STATISTICAL PROBLEMS CAUSED BY SAMPLE CENSORING

Two statistical problems arise from sample censoring if the researcher is using a regression framework to analyze data. The first is that regression coefficients estimated with censored data systematically misstate the true slope of the regression line for the larger, uncensored population (e.g., the owners and renters). Most researchers recognize this limitation. Indeed, it is quite common to see caveats about the external validity of the empirical work done with restricted samples. For instance, in the example described above, the researcher might preface the empirical findings by noting that the results show how various factors affect desired expenditures given that the respondent owns a home.

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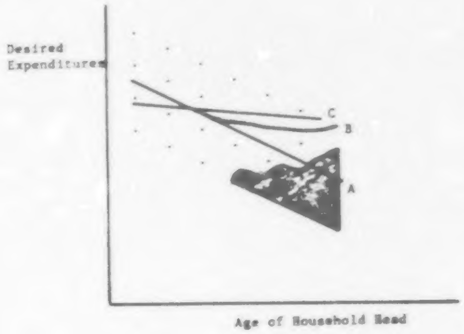
[1] Assistant Professor, Department of Family and Consumer Studies. The author wishes to thank Robert N. Mayer and Ken R. Smith for their helpful comments. Data used in the analysis were collected by the University of Utah Survey Center during November and December 1984. The author bears exclusive responsibility for any errors or ambiguities that remain in this work.

The second, less frequently recognized statistical problem associated with sample censoring is that the estimated regression coefficients are in all likelihood biased. This point can be best illustrated with the help of Figure 1. Suppose a researcher has data on desired durable expenditures for those respondents that recently purchased a durable. Furthermore, a respondent's desired expenditure level depends on his/her age. The relationship between desired expenditures and age is plotted in Figure 1. This diagram indicates that older consumers would like to spend less on durables than younger consumers. In addition, older consumers are less likely to have made a recent durable purchase. Thus observations on the dependent variable are simply missing for many older consumers. These consumers are then excluded from the sample. Their exclusion is represented by the shaded area.

Figure 1[a]



[a] Adapted from a graphical presentation done by Berk [2, p. 387].

If all of the data had been available, the fitted regression line between desired expenditures and age would have been line A. However, with the systematic exclusion of some data points from the sample, the new relationship between desired expenditures and age is nonlinear and represented by curve B. It becomes clear that any attempt to fit a straight line to this nonlinear relationship will produce some systematic specification error. Suppose that the researcher fits line C with least squares regression using the censored data. A visual inspection indicates that for low values of age the residuals are positive and for high values the residuals are negative. In this example, respondent's age is negatively correlated with the error term and as a result, causal effects are mistakenly attributed to the respondent's age when they are in fact the result of random error. In this situation the estimated age coefficient (as well as the estimated intercept term) will be biased [20, p.393] and therefore the researcher cannot treat the results as representative of even the restricted subsample of of consumers who made a recent durable purchase.

In sum, indirect sample censoring threatens the internal as well as the external validity of a researcher's empirical work. It is difficult to ascertain the extent of the bias (if any) that sample censoring introduces into an analysis especially when a researcher is dealing with a multivariate model. However, the first step is for the researcher to recognize when the possibility of biased estimates due to sample censoring arises.

Incidental censoring can occur for a variety of reasons that in most instances are beyond the researcher's immediate control. (See Richard Berk's 1983 article [2] for an good discussion of the various types of censoring.) For instance, wage data are simply not available for women who are not employed outside of the home. Similarly, desired expenditure data may only be collected from a sample of individuals who have made recent purchases.

Berk [2, p.392] points out that sample censoring is frequently an inadvertant result of the manner in which a questionnaire is constructed. For instance, the researcher interested in variations in complaining behavior may first screen respondents by asking them if they have complained about a product to a state agency recently. Once those who respond in the negative have been filtered out, then the researcher asks the respondent among other things, how much total time has he/she spent trying to obtain redress for the faulty product. This type of questionnaire construction is desirable in the sense that it may make it easier for some respondents to answer the questions (i.e., respondents no longer have to read through a series of questions that do not apply to their specific situations). Yet at the same time such filtering techniques can create the potential for incidental censoring.

STATISTICAL SOLUTIONS TO THE CENSORING ISSUE

During the last ten years statistical techniques have been developed by two econometricians, James Heckman [13, 15] and Tekeshi Amemiya [1], which allow a researcher to correct for possible sample censoring. The basic goal of both techniques is to develop an instrumental variable that when included in the regression equation, corrects for the biases introduced by sample censoring. The Heckman technique is discussed here because it is the more tractable one.

Many formal presentations of the correction for incidental censoring are available elsewhere [6, 15, 18], and what is presented here is no substitute for these more technical discussions.

Rather, what follows is meant to give the reader a basic understanding of how to correct for selectivity bias. This presentation draws heavily on Heckman's 1979 work [15].

CORRECTING FOR INDIRECT SAMPLE CENSORING

The procedure begins by thinking of the sample selection issue as a two equation system:

$$Y_{1i} = X_{1i}B_1 + u_{1i} \qquad i=1,\ldots N \qquad (1)$$

$$Y_{2i} = X_{2i}B_2 + u_{2i} \qquad i=1,\ldots N \qquad (2)$$

where,

Y_{1i} = the endogenous variable of interest (e.g., desired durable expenditures).

X_{1i} = a vector of exogenous variables that are posited to affect Y_{1i} (e.g., age, number of family members, etc.).

Y_{2i} = an endogenous variable that operates as the selection criterion for observation of Y_{1i} (e.g., the consumer has recently purchased a major durable).

X_{2i} = a vector of exogenous variables that are posited to affect the selection criterion. Some, if not all of these variables also appear in the X_{1i} vector (e.g., income affects both the probability of making a purchase and a consumer's desired expenditure).

Furthermore, the error structure of equations (1) and (2), is assumed to be as follows (where E(·) is used to denote the expected value):

$$E(u_{ji}) = 0 \qquad j=1,2 \quad i=1,\ldots N \qquad (3)$$

$$E(u_{ji}^2) = \sigma_j^2 \qquad j=1,2 \quad i=1,\ldots N \qquad (4)$$

$$E(u_{1i}u_{2i}) = \sigma_{12} \qquad i=1,\ldots N \qquad (5)$$

Thus, the expected value of the disturbance term in each equation is zero, but the disturbances are correlated across equations.[2] This covariance link across equations (σ_{12}) indicates that the dependent variable in equation (1) (e.g., desired expenditures) is affected by the dependent variable in equation (2) (e.g., whether or not the consumer makes a purchase). Thus, equation (5) embodies the concept of sample censoring in this mathematical formulation.

Given these assumptions, the population regression function for the equation of interest, equation (1), can be written,

$$E(Y_{1i} | X_{1i}) = X_{1i}B_1 \qquad i=1,\ldots N \qquad (6)$$

However, Heckman shows [15] that the equation for the censored subsample of available data is,

$$E(Y_{1i} | X_{1i}, \text{selection rule}) = X_{1i}B_1 + E(u_{1i} | \text{selection rule}) \qquad i=1,\ldots C \qquad (7)$$

where,

C = N - the observations lost to sample censoring.

Note, if the censoring rule mandates that the dependent variable in equation (1) be observed only if the dependent variable in equation (2) is greater than zero (the situation one has when a desired expenditures question is asked only of those who have made recent purchases), equation (7) can be written as:

$$E(Y_{1i} | X_{1i}, Y_{2i} > 0) = X_{1i}B_1 + E(u_{1i} | u_{2i} > -X_{2i}B_2) \qquad (8)$$

where,

$$E(u_{1i} | u_{2i} > -X_{2i}B_2) = \left[\frac{\sigma_{12}}{(\sigma_2^2)^{\frac{1}{2}}}\right]\lambda_i \qquad (9)$$

and,

$$\lambda_i = f\left[\frac{-X_{2i}B_2}{(\sigma_2^2)^{\frac{1}{2}}}\right] \Big/ \left(1 - F\left[\frac{-X_{2i}B_2}{(\sigma_2^2)^{\frac{1}{2}}}\right]\right) \qquad (10)$$

In equation (10), f(·) represents the probability density function of $-X_{2i}B_1/(\sigma_2^2)^{\frac{1}{2}}$, which is assumed to be normally distributed. Correspondingly, F(·) represents the cumulative density function of $-X_{2i}B_2/(\sigma_2^2)^{\frac{1}{2}}$, which is also assumed to be normally distributed. With this information, equation (8) can be rewritten as

$$E(Y_{1i} | X_{1i}; Y_{2i} > 0) = X_{1i}B_1 + \left[\frac{\sigma_{12}}{(\sigma_2^2)^{\frac{1}{2}}}\right]\lambda_i \qquad (11)$$

Lambda (λ) is called the inverse of the Mill's Ratio or what is more commonly known as a hazard rate. It represents the probability that an observation is excluded from the sample of interest conditional on the larger, uncensored sample at risk [27, pp. 8-10].

From this formulation, it is apparent that Heckman has translated the problem of censoring observations on the dependent variable into one of correcting for an omitted independent variable. Lambda is the omitted variable that if included as a regressor in equation (1), satisfies the condition that the independent variables and the error term be uncorrelated. Thus, a researcher can avoid biased regression estimates when using censored data by including lambda as one of the regressors.[3]

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[2] Under this specification the residuals of both equations are assumed to be distributed bivariate normally. Other distributions could be specified however the reader should recognize that this would change the specifics of the correction term that Heckman derives.

AN EXAMPLE OF CORRECTING FOR SAMPLE CENSORING

Consider how the wording of the following survey question might result in sample censoring. During November/December 1984, the University of Utah Survey asked a random sample of Utahns the following question:

> How often would you say you wear seat belts when you are the driver of the car?

Out of 809 individuals aged 18 years or older who responded to this question, approximately 5% said that they did not drive and therefore could not adequately answer the question. A researcher interested in the determinants of seat belt usage would certainly be tempted to delete the small percentage of nondrivers from the sample and proceed to estimate a regression model on the censored subsample that remains. To explore the extent of the bias that such a strategy would introduce, a seat belt usage model is estimated here with and without correcting for the censoring of nondrivers.

From the preceding section, it is evident that correcting for selectivity bias involves several steps. First, one needs to obtain estimates of the hazard rate (λ) associated with driving. To do this, a probit equation in the spirit of equation (2) is estimated.[4] The dependent variable in this equation is the respondent's driving status (i.e., the respondent either drives or does not drive). It is posited that whether or not an individual drives is a function of the respondent's sex, marital status, employment status, residential location, age, and education.[5] The results of this probit equation appear in Table 1.

TABLE 1. Parameter Estimates of the Probit Equation for Respondent's Driving Status[a] (t-statistics in parentheses).

Variable	Coefficients
Constant	2.91 (3.43)*
Respondent's Sex (1=female; 0=male)	-.668 (-2.21)*
Respondent's Age (in years)	-.0311 (-4.67)*
Respondent's Marital Status (1=married; 0=otherwise)	.459 (1.95)
Urban/Rural Residence (1=urban; 0=rural	-.300 (-1.31)
Respondent's Employment Status (1=employed; 0=otherwise)	.489 (1.84)
Respondent's Education (in years)	.0410 (.871)

$\chi^2 = 86.24$**
N = 809

*Statistically significant at the .05 level

**The critical value for $\chi^2_{(\alpha=.05,\ \nu=6)} = 16.8$

[a]The dependent variable takes on a value of 1, if the respondent drives and 0 if the respondent does not drive.

Once the probit equation is estimated, the next step is to use the coefficients from this equation to calculate λ_i (i.e., the probability that a respondent will not drive, given the original sample), for each sample respondent using the specification given by equation (11).[6] Having completed this calculation, λ_i can now be entered as an independent variable in the substantive equation of interest (the seat belt usage equation). In this illustrative exercise, λ_i is entered as an independent variable along with age, education, religiousity, political orientation, gender, marital status, income, and health insurance coverage, in the equation that estimates seat belt usage.[7]

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[3] Heckman uses the specification of equation (11) to note the two instances where there is no need to correct for selectivity bias [14, p.13]. First, if $\sigma_{12} = 0$. That is, if the disturbances that affect sample selection are independent of the disturbances that affect the substantive equation, then least squares parameter estimates of equation (1) are unbiased. Second, if $\lambda = 0$, that is, if the sample selection criterion allows all population observations to have an equal chance of being included in the sample then again, least squares estimates of equation (1) are unbaised. A researcher who chooses not to correct for sample selection bias is thus implicitly (if not explicitly) making one or both of these assumptions.

[4] Hazard rates can be calculated from a variety of models including linear probability models, logistic models, and probit models. The choice of a model and a corresponding estimation technique is decided by the assumptions one makes about the error structures of the equations. (See Hozencik [17] and Kinsey [19] for discussions of the error structure assumptions in some of the qualitative choice estimation techniques.) In this presentation it has been assumed that the error terms for equations (1) and (2) are distributed bivariate normal. This assumption is consistent with the probit estimation technique [15] and that is why probit is used here.

[5] Since this empirical work is done strictly for illustrative purposes, justification for the inclusion of these independent variables in the probit equation is omitted.

[6] Several computer software packages contain algorithms that with some adaptation can be used to calculate lambda. One of the more popular packages that has this capability is GLIM.

[7] Again, since the empirical work is being done for illustrative purposes, no justification for the

To assess the importance of correcting for selectivity bias in this illustration, the seat belt usage equation is also estimated without correcting for incidental censoring. The results for both equations are presented in Table 2.

TABLE 2. Ordinary Least Squares Parameter Estimates for the Seat Belt Use Equations [a] (t-statistics in parentheses).

Independent Variable	Uncorrected Coefficients	Corrected Coefficients
Constant	-110 (-15.5)*	-108 (-15.0)*
Annual household income (in $)	8.41×10^{-5} (.110)	-2.00×10^{-6} (-.0379)
Respondent's sex (1=female; 0=male)	-1.04 (-.526)	-1.50 (-.682)
Respondent's marital status (1=married; 0=otherwise)	-.971 (-.409)	-.250 (-.0951)
Respondent's education (in years)	2.38 (5.26)*	2.54 (5.50)*
Respondent's age (in years)	-.0142 (-.266)	-.130 (-1.61)
Respondent's religious involvement (1=active; 0=otherwise)	9.00 (4.13)*	9.20 (4.27)*
Respondent's health insurance (1=has insurance; 0=otherwise)	10.6 (3.19)*	11.8 (3.51)*
Respondent's political orientation (1=liberal; 0=otherwise) [b]	4.96 (1.88)	5.36 (2.06)*
Respondent's political orientation (1=middle-of-the-road; 0=otherwise) [b]	-3.44 (-1.46)	-2.84 (-1.22)
Lambda (λ)		15.3 (1.01)
R^2	.095	.11
F	10.1**	9.58**

*Statistically significant at the .05 level.

**The critical value for $F_{(\alpha=.01;\ 9,744)} = 2.41$.

[a] The dependent variable is defined as the percentage of time that a respondent wears a seat belt when driving.

[b] The omitted group in this analysis consists of those respondents who classified themselves as political conservatives.

At first glance the differences in the coefficients do not appear particularly dramatic (only one variable is statistically significant in the corrected equation that is not statistically significant in the uncorrected equation and none of the coefficients change much in magnitude). However, the case for correction becomes more compelling if one recalls that a mere 5% of the sample is censored. Intuitively, one would think that the potential for biased coefficients would be positively correlated with the percentage of the sample that is censored. Thus, one would expect to see only negligible differences in the estimates associated with 5% censoring. The fact that the estimates change as much as they do must reflect a fairly strong correlation between the error terms in the selection equation and the substantive equation of interest.

Selection bias in the seat belt usage equation is further supported by the fact that the tests of statistical significance improve for six of the nine corrected coefficients. Kmenta [20, p.394] notes that tests of significance err on the conservative side when a relevant explanatory variable is omitted from the specification of a regression equation. The improvement in the levels of statistical significance in the corrected equation again argues for the need to correct for sample censoring in this example.

CONCLUSIONS

Economists have begun to use Heckman's procedure to correct for incidental sample censoring in a variety of situations. Indeed, corrections are now automatically made in the estimation of wage equations for groups like married women [5, 6, 12, 15]. Furthermore, the economic applications are spreading. Lee and Trost [21] correct for sample censoring in their investigation of housing demand. Duncan and Hoffman [7] correct for selectivity bias in estimating the economic gains from remarriage for divorced women. In both instances these economists found fairly dramatic differences in the estimated coefficients after correcting for incidental censoring.

Unfortunately, recognition of the statistical problem created by sample censoring and its remedies appears to be slow in spreading to other disciplines. There are a few exceptions. In psychology, Glass, McLanahan and Sorensen [11] find significant differences in the estimated psychological consequences of divorce before and after correcting for the selectivity bias introduced by divorcing. Within the realm of sociology, Berk and Shih [3] find substantial differences in citizens' evaluations of the criminal justice system after correcting for non-response to their questionnaire.

The analysis of many consumer issues might be hindered by censoring problems because consumer research often involves the use of nonrandom subsamples. Consumer researchers using nonrandom samples should begin their empirical work by investigating the question of whether sample censoring is a relevant issue. If a selection process can be modeled and if there is reason to believe that the correlation between the error terms in the resulting selection and substantive equations is nonzero, correction for selectivity bias should be made using the Heckman procedure.

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list of the independent variables is presented here. Readers who are interested in knowing more about the determinants of seat belt usage are referred to [9, 10, 16, 22, 25].

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It is important that researchers in the consumer field alert themselves to the possible problems associated with censoring and the steps that can be taken to correct those problems. By correcting for sample selection bias when it is appropriate, consumer researchers can make marked improvements in both the internal and the external validity of their empirical work.

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USING A CHARACTERISTICS AND NEW COMMODITIES APPROACH TO EXPLAIN IRA SELECTION

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ABSTRACT

Whether consumers made efficient IRA purchase decisions was analyzed using a framework adapted from Lancaster's characteristic and Ironmonger's new commodities approaches to explain consumer behavior. The extent to which financial characteristics existed within three types of IRAs was compared to the importance of these characteristics for consumers to determine an ideal IRA. Efficiency was defined as the difference between ideal and actual IRA purchase behavior.

THEORETICAL FRAMEWORK

The traditional microeconomic approach to the study of consumer behavior is based upon the principles of utility maximization: satisfying unlimited wants through the purchase of goods and services in the most efficient way possible, given limited resources. Utility is viewed as being a function of a goods and services per se.

Alternative microeconomic approaches to the study of consumer behavior based on the traditional approach have been proposed. Two in particular view utility as some function of the characteristics of goods and services. One is offered by Kelvin Lancaster and will be referred to as the characteristics approach [4]. The key difference between the characteristics approach and the traditional approach lies in the assumptions regarding the utility function. Lancaster assumes that utility is a function of the characteristics of goods and services rather than of the goods and services themselves. His approach, which accounts for both changes in a product's characteristics and changes in individual tastes and preferences for those characteristics may be a better tool for some consumer behavior problems than is the traditional approach which ignores information about product characteristics.

The second approach is offered by D.S. Ironmonger and will be referred to as the new commodities approach [2]. The major difference between the traditional approach and the new commodities approach is that the former assumes a fixed number of commodities and fixed tastes and preferences on the part of consumers, whereas the latter allows these components of utility maximization to vary [2]. The traditional approach is unable to handle variations of this type, and as a result ignores the existence of such variations or is forced to deal with them in a type of residual-trend analysis, whereby such changes are treated as the "everything else held constant" under ceteris paribus conditions. Ironmonger, on the other hand, recognizes the need to account for the existence of new commodities (defined as either a new good or as a good whose characteristics have changed) and to account for the effect that such commodities have on the consumer's existing utility function. Such a theoretical framework is similar to Lancaster's approach in the sense that goods or commodities are defined in terms of their characteristics. Like Lancaster, new goods can be defined as exhibiting different characteristics or different proportions of like characteristics. However, unlike Lancaster, utility is viewed as a function of satisfying wants, not of characteristics. Satisfying wants is viewed as a function of commodity characteristics and utility is obtained only when wants are satisfied. Ironmonger argues that even though one consumes commodities to receive characteristics, some characteristics are consumed in the process for which the consumer never expressed a desire. No utility is received by consuming characteristics for which there was no expressed want. Hence, utility is only achieved by consuming characteristics for which there was an expressed want.

In sum, traditional neoclassical utility theory views utility as a function of goods and services. Lancaster's characteristic approach views utility as a function of the characteristics of goods and services. Ironmonger's new commodities approach views utility as a function of satisfied wants and satisfied wants as a function of the characteristics of goods and services. Hence, characteristics are used to satisfy wants from whch utility is received; utility is not received from characteristics unless the characteristics are wanted. Equations (1), (2), and (3) present the utility functions of the traditional, characteristic, and new commodities approaches, respectively.

$$U = f(X,Y) \quad \text{where X and Y are goods} \qquad (1)$$

$$U = U(Z) \quad \text{with} \quad Z = BX \qquad (2)$$

where Z = vector of characteristics
X = vector of goods
B = transformer of goods into characteristics.

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$$U = U(Z_i) \text{ with } Z_i = f(w_{ij}) \tag{3}$$

Where Z_i = units of satisfaction of want i

w_{ij} = units of satisfaction of want i obtained from one unit of commodity j.

To operationalize the characteristic approach, the extent to which characteristics exist within any good or service must be known. To operationalize the new commodities approach, the extent to which characteristics exist within a good or service must also be known, but in addition, the importance or desireability of product characteristics to a consumer is also necessary. To identify both components of the new commodities approach, two ratings were constructed: an Existence Rating (ER) which measured the extent to which characteristics existed within a given product; and an Importance Rating (IR) which measured the extent to which characteristics were desired or considered important by consumers.

According to the traditional approach, if a good or service exists it has the potential to provide utility. No accounting of the IRs and ERs of characteristics is necessary. According to the characteristics approach, if a characteristic exists it has the potential to provide utility. Therefore, products with the highest ERs for all characteristics would be potential candidates for maximizing a consumer's utility. However, according to the new commodities approach, three different situations are possible:

$$IR = ER \tag{4}$$

The extent to which characteristics are wanted could be equal to the extent to which characteristics exist. This is a potential utility producing situation.

$$IR > ER \tag{5}$$

The extent to which characteristics are wanted could be greater than the extent to which characteristics exist. Utility is received up to where IR = ER. The excess of the IR over the ER creates a potential disutility situation.

$$ER > IR \tag{6}$$

The extent to which characteristics are wanted could be less than the extent to which characteristics exist. Utility is received up to where ER = IR. The excess of the ER over the IR is a neutral situation.

However, it is more likely the case that Equation (6) does not represent a neutral situation. Rather, the excess of the ER over the IR may create a potential disutility situation. This disutility may be a function of non-optimal resource allocation. When paying for a characteristic which is not desired or for amounts of a characteristic above a desired level, consumers may be using financial resources in excess of an optimal level. In addition, consumers may have to incur costs of substitution by giving up some characteristics in exchange for others when faced with real world products containing fixed combinations of characteristics. For example, a consumer may wish to purchase a microwave oven which defrosts and has a temperature probe. However, the only models which contain these two features also has a memory. The consumer must pay for the existence of the memory, implicit in the price of the oven, in order to consume the other two desired characteristics. Therefore, it may be more appropriate to assume that only two, not three, possible situations may arise:

$$IR = ER \tag{7}$$

A utility producing situation analogous to Ironmonger as illustrated in Equation (4).

$$IR \neq ER \tag{8}$$

A disutility producing situation caused by a less than optimal resource allocation. This situation can arise from either the IR exceeding the ER (analogous to Ironmonger as illustrated in Equation (5)) or by the ER exceeding the IR.

OPERATIONALIZING THE FRAMEWORK

To illustrate the adaption of Ironmonger's approach, it was necessary to identify a new good or service which contained a variety of unique and overlapping characteristics. Individual Retirement Accounts (IRAs) were chosen for this purpose. IRAs met the new good or service requirement since for a large proportion of the American labor force such accounts first became available on January 1, 1982 with the passage of The Economic Recovery Act of 1981. Prior to that date IRAs were only available to workers who were not covered by other retirement plans. Further, there are a wide variety of IRAs to choose from. Since numerous unique and overlapping characteristics could be identified across IRA types, this new commodity met the criteria for the selecting of a good or service to illustrate the framework.

The demand for IRAs is assumed to exist. The focus of this research, therefore, lies in the selection process for a particular type of IRA. Specifically, efficient utility maximizing consumers are defined as those consumers who purchase that type of IRA which contains the most of characteristics they consider to be important.

Empirical research in the area of efficiency offers varied definitions and measures of the concept, one being the difference between ideal and actual behavior [9]. Ideal consumer behavior leads to a utility maximizing consumption choice, assuming full and perfect information. Actual consumer behavior reflects what consumers actually select. If the ideal and actual consumption choice are not the same, it is assumed that an inefficient consumption decision results with the degree of inefficiency being the gap between the ideal and actual consumption choice.

Other research has defined efficiency as that behavior which yielded the "greatest utility from a consumption decision given fixed resources," and efficient consumers were those who could "successfully identify the relative abilities of a set of alternative choices to provide utility" [10, p. 37]. This definition of an efficient consumer (not merely one who could match ideal and actual behavior but one who could determine the utility providing capabilities of various consumption decisions) resembles Ironmonger's approach whereby consumers are assumed to know which characteristics or choices will provide utility.

The concepts of ideal and actual behavior have also been used in studies of brand choice behavior with an ideal brand defined as that brand which contained those dimensions deemed most important by consumers [3]. Comparisons between their ideal and selected brand were made using an absolute difference weighting procedure.

In this study, efficiency is also defined as the difference between ideal and actual behavior. Actual behavior is directly observable; which IRA did a consumer purchase. The approach used to define and measure ideal behavior is more complex. First, the characteristics of IRAs must be identified and defined. Second, the extent to which each characteristic is desired or wanted by consumers must be determined (IR) followed by determining the extent to which each characteristic exists within IRA types in the real world (ER). Third, the IRs and ERs across all characteristics and across all IRA types must be compared to determine one ideal IRA. Consumers' ideal IRAs are hence defined as those IRAs which contain characteristics that consumers want in the amounts that they want them. Efficient consumers are defined as those consumers whose ideal IRA and actual IRA purchase are the same.

Defining Characteristics

In the late 1970s the issue of defining characteristics was recognized in the consumer economics literature as having an important impact on the operationalization of consumer behavior models. Hence, a variety of alternative approaches to defining characteristics were offered. One defines a product service characteristic as a "basic feature which gives rise to utility" [5, p. 52-53]. Hence, "manageability" would be considered as a product characteristic of an IRA. Such factors as number of alternative investments in a portfolio, frequency of brokers' phone calls, and availability of newsletters or other pertinent information on a regular basis, all of which contribute to the "manageability" of an IRA, would not be.

A second approach suggests that a hierarchy of product characteristics can be developed [1]. This hierarchy should include all types of product definitions with each type representing a different level of abstraction from the original product. For example, using a three level system, the first level could contain specific, objective, uni-dimentional, measureable product characteristics. Level two could consist of multi-dimentional and measureable characteristics which are functionally related to level one characteristics and which affect the overall desireability of a product. Level three refers to the overall product character, characterized by levels one and two.

In this study, seven IRA characteristics were defined. The specific attributes of IRAs which were included in these definitions were based upon research and promotional literature prepared by financial analysts and investment experts. Specifically, these materials included investment portfolios, prospecti, and brochures prepared by a wide variety of IRA providers. Survey articles published in financial magazines which described IRA investment alternatives and/or traced the performance of various IRA investments were also used. Attributes of IRAs which providers mentioned most often in their advertisements, attributes which analysts emphasized in their assessments of IRA performance, and attributes listed as being either advantages or disadvantages of any given IRA type by users and providers alike were used. These definitions also reflect the IRA attributes which consumers might use to distinguish among IRA types. These seven characteristic definitions are: *convenience*--the accessibility of an IRA provider to the consumer; *familiarity*--previous knowledge on the part of the consumer about a financial institution and its investments; *extra costs*--the extent to which the purchase of a particular type of IRA incurred extra costs such as fees, commissions, and/or penalties; *interest rates*--whether the IRA's interest rates were fixed, variable, stable, or volatile; *flexibility*--the ease with which IRAs could be transferred or rolled over and whether the IRA included a diversified portfolio of investments; *risk*--the expected outcome from an IRA investment based on previous performance and consumer expectations; and *management*--the degree to which an IRA was self-directed or managed by a representative of an IRA provider.

In general, these definitions are consistent with the elements of product characteristic and level two characteristic definitions cited above. They consist of many related IRA attributes which combine to produce a product service. For example, the product service "convenience" represents the ability of an investor to gain access to IRAs through their employer, local bank locations, and direct deposit facilities, as well as the degree to which phone call and mail contact is made with agents. Similarly, "flexibility" is an example of a product service which represents the ease with which funds can be rolled over or liquidated, the degree of diversification in investments, as well as the extent to which returns will reflect market conditions.

Existence Ratings

A group of twenty financial experts, including bankers, stockbrokers, independent investment counselors and insurance agents, were asked to assess the extent to which each of the seven IRA characteristics existed within three different IRA types. These three IRA types included: Savings Plans--IRAs offered through a bank, savings bank or savings and loan, or through a credit union; Brokerage and Investment Accounts--IRAs offered through investment companies or through independent stock brokers with investments being made in a variety of stocks or bonds, corporate trusts, or in a family of mutual funds which usually contain a growth-stock component; and Annuities--IRAs offered through insurance companies or through independent insurance agents in the form of an annuity.

Each of the IRA characteristics was assigned a total of 30 points. The experts were asked to distribute these points across the three types of IRAs. The allocation of points across specific characteristics was to reflect the extent to which the experts felt each IRA type contained those characteristics. For example, if the experts felt that the Savings Plan IRAs and the Annuity IRAs were equally convenient but the Brokerage and Investment Account IRAs were not convenient at all, they would assign 15 points to both the Savings Plan IRAs and the Annuity IRAs for convenience but zero convenience points to the Brokerage and Investment Account IRAs. The same procedure was followed for each of the seven IRA characteristics.

The materials mailed to the financial experts included a cover letter explaining the purpose of the study, a blank grid on which points were to be allocated within characteristics across IRA types, a set of instructions, a list of seven IRA characteristic definitions, and a description of how the point allocation would be interpreted. Seventeen of the twenty experts returned filled in grids.

A summary of the experts' assessment of the existence of characteristics within IRA types is presented in Table 1. From these data, existence ratings (ERs) for each characteristic within each IRA type were assigned. The ERs took on one of three values: 1,2, or 3. IRA types to which the experts, on average, had assigned the most points for a given characteristic were assigned a 3 for that particular characteristic. IRA types which, on average, received the least number of points for a given characteristic were assigned a 1 for that characteristic. The remaining IRA type, received the middle value of 2. These characteristic ERs are presented in the last three columns of Table 2.

Table 1. Summary of Expert's Assessment of the Existence of Characteristics Within IRA Types

IRA TYPES	Characteristics of IRAs Convenience	Familiarity	Extra Costs	Interest Rates	Flexibility	Risk	Management
Savings	13.39	11.43	5.71	7.29	8.43	3.71	5.00
Brokerage & Investment	10.03	9.82	13.21	16.36	17.14	20.50	21.07
Annuities	7.29	8.75	11.07	6.36	4.43	5.79	3.93
Total Points	30	30	30	30	30	30	30

Table 2. A Hypothetical Respondent's Importance and Existence Ratings

CHARACTERISTIC	Importance Rating	Existence Ratings Savings Plans	Brokerage & Investment	Annuities
Convenience	1	3	2	1
Familiarity	1	3	2	1
Extra Costs	3	1	3	2
Interest Rates	3	2	3	1
Flexibility	2	2	3	1
Risk	2	1	3	2
Management	1	2	3	1

Importance Ratings

The primary data used to assign importance ratings (IRs) come from the Consumer Financial Decisions Survey of 1982, (CFDS), a nationally representative data set of 4800 households. Mail surveys were used with a response rate of 72 percent, or 3445 households. Each household was asked to complete the questionnaire such that the information reported reflected the household's financial position. In addition, representatives of each household (hereafter referred to as respondents) were asked about their perceptions and attitudes regarding various aspects of household finances and other financial matters, along with pertinent demographic and socio-economic information. Since the study focused on households in which an IRA had been purchased, and on the importance that IRA characteristics held for consumers, the study sample was limited to only those households where at least one member had actually purchased an IRA. This reduced the study sample to 857 households.

Consumer attitudes and perceptions about household investments and finances as measured by the CFDS were used to measure each IRA characteristic. The use of attitudinal items to measure IRA characteristics facilitated an empirical application of Ironmonger's framework as consumers' agreement or disagreement with statements defining each characteristic would indicate the importance that they placed on those characteristics.

A Q-Sort procedure was used to assign attitudinal statements to characteristic definitions.[2] Twenty people were selected for this procedure according to their sex and educational levels such that they paralleled the CFDS respondents' distribution by sex and educational level. In addition, these twenty Q-Sort subjects had to have purchased an IRA by the CFDS interview date.

Each of the Q-Sort subjects was given 93 index cards. Each card contained an attitude statement from the CFDS. Subjects were also given a list of the seven IRA characteristic definitions. They were asked to sort the 93 cards into seven piles, each corresponding to a separate IRA characteristic. The subjects were told that the purpose of the excercise was to measure each characteristic using these statements and that their own personal feelings or agreement or disagreement with each statement should not enter into their evaluation. Rather, they were asked to determine which characteristic a consumer would be addressing if that consumer agreed or disagreed with each statement. To maintain uniquely defined characteristics, only the attitude statements which a majority of Q-Sort subjects sorted under each characteristic were used to define that characteristic. Hence, the IRA characteristics were defined by a unique set of attitude statements. The agreement and disagreement values on these attitude items for the respondents of the CFDS, which ranged from 1 to 5 representing a Likert-type scale of strong agreement to strong disagreement, were them summed within characteristic sets. For example, a majority of Q-Sort subjects determined that four of the 93 attitude statements defined the characteristic "convenience." These were:

- Saving time is more important than saving a few dollars.
- I like to be forced into savings by having payroll deductions.
- If interest rates were the same at savings banks and commercial banks, I would keep most of my savings at the most convenient one.
- I would rather buy insurance through my employer than through any other group.

If the respondents strongly agreed with all four of the attitude statements the sum of their strong agreement values would be 20 (4 times the value of 5). For these respondents it was concluded that "convenience" was very important. If respondents strongly disagreed with all four of these statements, the sum of their strong disagreement values would be 4 (4 times the value of 1). For these respondents it was concluded that "convenience" was not very important. This procedure was repeated for each of the seven characteristics, adjusted accordingly for missing values and for the number of attitude statements determined to define each characteristic. Hence, a measure of importance for each characteristic incorporated respondents' own attitudes toward statements measuring that characteristic.

These importance values were converted into characteristic importance ratings (IRs) whereby a value of 1 corresponds to a characteristic not being important to the respondent, a value of 2 corresponds to neutral importance, and a value of 3 corresponds to a characteristic being important to a respondent. The reduction of the five point Likert-type scale to a three point importance rating guarded against the possibility of extremity bias [6].

Determining an Ideal IRA

The importance ratings and existence ratings for each characteristic were used to determine which of the three IRA types was the respondent's ideal IRA. To reiterate, the respondent's ideal IRA was defined to be the extent to which an IRA type contained those characteristics the respondent considered to be most important. The existence rating measured the extent to which each IRA type contained any given characteristic. These ratings took on the values 1, 2, or 3. The importance ratings measured the relative importance that each characteristic held for each respondent. These ratings also took on the values 1, 2, or 3.

The measure of the respondent's ideal IRA compared these two ratings. Specifically, the respondent's ideal was measured as the absolute value of the difference between the ER and the IR of each characteristic for each IRA type. This procedure assumes that the two potential utility-/disutility situations depicted by Equations (7) and (8) are the only two possible outcomes of a comparison between the ERs and IRs. According to Equation (7), if the IR and ER are identical, the absolute value of the difference between the two ratings is zero and utility is achieved from having satisfied an expressed want:

$$|ER - IR| = 0 \qquad (9)$$

If the ER and IR are not equal, the absolute value of the difference of the two ratings is some value greater than zero. In this situation, disutility exists from either the IR exceeding the ER or the ER exceeding the IR:

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[2] Q-Sort is a technique whereby attitudes are quantified and classified. It can be used to sort attitudes according to how subjects feel that other individuals might rank or group attitudes. For example, in one study, the same set of subjects were asked to sort a set of attitude cards according to their own agreement or disagreement with the statements they were given. These same subjects were then asked to sort the same cards a second time according to how they felt their mother or father would have felt, and then again by how they felt they should be sorted under an ideal situation [7]. It is the latter type of Q-Sort that was used in this analysis for the purpose of measuring characteristic definition.

$$|ER - IR| > 0 \tag{10}$$

Since the respondent's ideal IRA is defined as that IRA which maximizes utility and minimizes disutilty, the IRA with the lowest absolute value of the difference between the ER and IR across all characteristics and all IRAs would be that respondent's ideal.

A numerical example is presented in Table 2 above. The last three columns are the existence ratings for each characteristic by IRA type as assigned by the financial experts. The first column lists characteristic importance ratings for a hypothetical respondent. For this respondent, the characteristcs extra costs and interest rates were most important; whereas the characteristics convenience, familiarity, and management were least important. Flexibility and risk were between the extremes. This respondent's IR for convenience was 1. The existence ratings for Savings Plan IRAs, Brokerage and Investment Account IRAs, and Annuity IRAs for convenience are 3, 2, and 1, respectively. Hence, the absolute value of the difference for convenience is $|3-1| = 2$ for Savings Plan IRAs, $|2-1| = 1$ for Brokerage and Investment Account IRAs, and $|1-1| = 0$ for Annuity IRAs. Since the Annuity IRA produced the lowest absolute value of the difference between the IR and ER, it yielded the highest level of convenience utility for this respondent; therefore the Annuity IRA was assigned one point representing its potential to become the respondent's ideal IRA. If two IRA types tied for the lowest absolute value of the difference between the IR and ER for a given characteristic, they both were identified as yielding the highest level of utility for that characteristic and both were assigned a point.

This procedure was repeated for each of the seven characteristics. After each set of comparisons, one or more IRA types were identified as yielding the highest level of utility for that characteristic and was assigned one point. For each respondent, the IRA type or combination of types which received the most points was defined as the respondent's ideal IRA. The assigning of points to characteristics which yielded the highest levels of utility by IRA type for the hypothetical respondent is presented in Table 3. This respondent's ideal IRA is an Annuity IRA which received four of the seven possible characteristic points.

Table 3. Calculating the Ideal IRA

Characteristic	Savings Plans	Brokerage & Investment	Annuities	Points S	Points B	Points A
Convenience	$\lvert 1-3 \rvert = 2$	$\lvert 1-2 \rvert = 1$	$\lvert 1-1 \rvert = 0$			1
Familiarity	$\lvert 1-3 \rvert = 2$	$\lvert 1-2 \rvert = 1$	$\lvert 1-1 \rvert = 0$			1
Extra Costs	$\lvert 3-1 \rvert = 2$	$\lvert 3-3 \rvert = 0$	$\lvert 3-2 \rvert = 1$		1	
Interest Rates	$\lvert 3-2 \rvert = 1$	$\lvert 3-3 \rvert = 0$	$\lvert 3-2 \rvert = 1$		1	
Flexibility	$\lvert 2-2 \rvert = 0$	$\lvert 2-3 \rvert = 1$	$\lvert 2-1 \rvert = 1$	1		
Risk	$\lvert 2-1 \rvert = 1$	$\lvert 2-3 \rvert = 1$	$\lvert 2-2 \rvert = 0$			1
Management	$\lvert 1-2 \rvert = 1$	$\lvert 1-3 \rvert = 2$	$\lvert 1-1 \rvert = 0$			1
Total number of characteristic points earned:				1	2	4

Identifying Efficient IRA Purchasers

The ideal IRA or ideal combination of IRAs was then compared to the actual IRA or combination of IRAs that the respondents had purchased. If the ideal and actual IRA measures were the same, the respondent was classified as an efficient IRA purchaser. If the ideal and actual measures were not equal, the respondent was classified as an inefficient IRA purchaser, one who did not purchase that IRA which contained those characteristics which were important to them.

Approximately forty percent of the respondents' households were classified as efficient. Why certain households were efficient IRA purchasers and others not is an interesting empirical question. Factors thought to impact on the probability of a household being efficient or not could be analyzed using probit analysis. Such an analysis has been completed by Simon [8]. Findings indicate that households who are more likely to purchase their ideal IRA had been exposed to the financial institution which provided their ideal IRA through the purchase of other financial services, had relatively fewer years of education, were located in central, midwestern areas of the country, were not familiar with tax sheltered investments in general, had lower incomes, were newly eligible to purchase IRAs, were not self-employed but members were working as wage and salary workers, and found the IRA selection process to be fairly simple.

In addition to the probit analysis of efficient versus inefficient respondents, an alternative theoretical application of this framework may be of interest. There is reason to believe that the amount by which utility is reduced when the IR is greater than the ER is not equivalent to the amount of utility reduced when the ER is greater than the IR. Therefore, whether the difference between the ER and IR is positive or negative, if incorporated into an ideal IRA measure, may yield different results.

SUMMARY AND IMPLICATIONS

Alternative microeconomic approaches to explain consumer behavior were explored and compared. It was concluded that for certain types of goods and services, an approach which accounted for product characteristics as well as the importance that consumers placed on those characteristics, might be preferred. The selection of a specific type of IRA was selected to illustrate such an approach. IRA characteristics were defined based upon research and promotional literature prepared by finacial analysts and investment experts using the guidelines of a characteristic definition hierarchy. Q-Sort was used to verify and operationalize characteristic definitions using attitude items on household finances and investments. Levels of agreement and disagreement with the attitude items were converted into characteristic importance ratings which measured the importance that each IRA characteristic held for respondents. The extent to which a particular characteristic existed within an IRA type was measured by existence ratings to allow assessment of whether respondents purchased those types of IRAs which contained characteristics most important to them. A panel of financial experts determined the existence ratings for each characteristic for three types of IRAs currently on the market. A respondent's ideal IRA was defined to be the extent to which a specific IRA contained those characteristics the respondent considered to be most important. Ideal IRAs were compared to actual purchases to determine whether the respondent made an efficient IRA purchase decision.

The technique developed by this research for defining and operationalizing product characteristics can be used to help consumers make efficient purchase decisions. First, appropriate characteristics must be defined. For IRAs, composite characteristics which identified product services were used. By using materials prepared by manufacturers, consumer information services, retailers and other forms of advertising, consumers can identify characteristics appropriate to a given product.

Second, the importance that each product characteristic holds for consumers could be identified. Consumers could list characteristics and rank them according to importance. To make the ranking process easier, manufacturers or consumer information services could prepare lists of product characteristics and suggest ways in which products could be prioritized to reflect the existence of characteristics. For example, Consumer Reports lists product characteristics and then identifies which products contain them. Manufacturers may want to follow suit.

Third, by identifying which characteristics are most important, even in the absence of a prepared chart identifying where product characteristics might be found, consumers can limit their search activity. Information search could be focused more directly on specific product characteristics, reducing both the time and money costs of search.

If the goal of consumer policy is to help consumers make efficient consumption decisions, the technique suggested here offers a way to achieve this goal. This technique can be used to reduce consumer dissatisfaction or frustration caused by purchasing products which do not meet their expectations. If desired characteristics are identified prior to purchase and products which contain those desired characteristics are also identified prior to purchase, the probability of buying the "wrong" product is reduced.

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FROM PERFECTIONISM TO FADISM:

MEASURING CONSUMERS' DECISION-MAKING STYLES

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ABSTRACT

Consumers make choices using particular decision-making styles. This paper develops a conceptualization of consumer decision-making styles based on nine hypothesized decision-making style traits. A 50 item instrument which empirically measures the hypothesized traits is developed and tested in an exploratory study. Based on factor analysis of the instrument, six consumer decision-making style traits are identified and validated: perfectionism, value-conscious - "value for money" orientation, brand consciousness, novelty-fad-fashion consciousness, shopping avoidance - satisficing style, and confused-support seeking decision-maker. A method for presenting a *Profile of Decision-Making Style*, based on measures of the individual style traits, is then described. Four unique findings of the research are discussed, and applications of the test for consumer decision-making styles are suggested for consumer education, consumer research, and family financial counseling.

The literature on consumer decision-making suggests that consumers approach the market using a certain "decision-making style". That is, consumers make choices using a particular purchasing strategy and perhaps certain related rules guiding decision-making. For example, consumers may be characterized as information seekers, information processors, maximizers (the classical idea of the economic man), satisficers (buyers of the "good enough"), novelty-fashion seekers, and rational comparison shoppers (e.g. 1, 2, 3, 4, 5, 6).

Thus the analysis of such identifiable consumer decision-making styles is an important subject in the literature of consumer-interest studies. Yet the formal conceptualization and empirical measurement of these styles has not advanced significantly. Based on these observations, the objective of this paper is to develop an analytical approach to identifying and measuring consumer decision-making styles. A *consumer decision-making style* is defined as a patterned, mental, cognitive orientation towards shopping and purchasing, which consistently dominates the consumer's choices. The concept implies that most or all the consumer's choices of products and services are influenced by one or more specific decision-making traits that ultimately control decision-making, and that these traits are ever-present, predictable, central driving forces in decision-making. In essence we are speaking of a relatively enduring *consumer-personality*, analogous to the more general concept of human personality in psychology.

OBJECTIVES AND CONCEPTUAL FRAMEWORK

The principle objective of this paper is to develop a simple method for analyzing decision-making styles that can be quickly and easily applied both in research and educational situations. Such a test should meet several requirements:

1. It should identify a typology of realistic decision-making traits or characteristics of consumers that can be seen in "real world" consumer behavior as well as in theory; that is, it should be founded both in theory and application.
2. Such a typology should be parsimonious, that is, it should identify a relatively small number of consumer decision-making style traits.
3. Each trait tested should be as closely associated with the final, actual consumer decision as possible.
4. It should be able to identify how high or low a consumer rates on each decision-making style trait. This recognizes the fact that a consumer may have several measurable decision-making *traits* comprising his or her basic *style*.
5. The test of traits should have reliability and validity.

The first and most important step is to establish a conceptual framework for analyzing consumer decision-making styles. Though the literature on this subject is conceivably endless, the references cited earlier suggest some of the most fundamental styles consumers are thought to follow. Without elaborating extensively on this, we may derive at least nine major[1] decision-making style traits of consumers:

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[1] The number of traits may be smaller or larger, but this appears as a relatively comprehensive yet parsimonious number for an initial exploratory investigation.

DECISION-MAKING STYLE TRAITS --

1. Aesthetic/style/fashion conscious.
2. Economy conscious/price sensitive.
3. Economy conscious/high quality, high functional orientation
4. Socially conscious/other influenced/ shopping narcissist.
5. Perfectionist/maximizer.
6. Satisficer/buyer of the "good enough."
7. Decision simplifier/time saver/shopping efficiency-conscious.
8. Shopping hedonist/shopping enjoyer/
9. Comparison shopper/rational shopper/systematic-planned shopper/information seeker.

A consumer's decision-making style is the sum of the particular traits he or she possesses. (Similarly one's total personality is their particular combination of specific personality traits, e.g., assertiveness, extraversion, confidence). This is elaborated on further in the "Discussion" section. We turn now to the methodology for measuring and validating the traits.

METHODOLOGY

An instrument was developed to measure a consumer's general orientations toward shopping and buying. The instrument consisted of 50 Likert Scale items. Each of the nine hypothesized decision-making style traits had at least three items in the instrument; in addition, a variety of related items that were thought to be related to these nine hypothesized traits were included in the inventory. These included such items as attitudes toward consumer information, attitudes toward shopping, "market signals" used (e.g., price equals quality), and orientations toward brand names and product quality.

To conduct an initial test of the instrument for analyzing decision-making styles, an exploratory study was conducted. A sample of 111 undergraduate women in two classes of the School of Family and Consumer Resources, University of Arizona, was administered the instrument. The sample included freshmen through senior students, predominantly between 19 and 25 years of age. The use of such student samples for exploratory research of this type is appropriate, given the objective which is to analyze decision-making styles rather than to generalize to larger populations.

Reliability of the instrument was assessed using a test-retest procedure. Six weeks following administration of the original instrument, a random sampling of 14 items from the original 50 items was readministered to 100 of the 111 original subjects. Pearson Correlations were calculated on each pair. The 14 test-retest correlations averaged .50 and ranged from +.34 to +.70. All were statistically significant (P = adequate reliability; given the nature of the sample and the opportunity for training effects to enter during the test-retest interval, the reliability is viewed as very satisfactory.

To establish construct validity, two factor analyses were run using the principle factors methods with varimax rotation of factors. One factor analysis forced a nine factor solution to conform to the initial hypothesis of nine decision-making style traits. A second, more parsimonious factor analysis forced a six factor solution. Since a factor analysis solution is indeterminant (i.e., several solutions can be equally correct mathematically), this experimentation with alternative factor structures is appropriate when theory building is the principle objective. These factor analysis results show excellent construct and content validity, as will become evident in the "Findings" section.

FINDINGS

The following findings focus on the result of two factor analysis solutions: the nine factor solution testing the initial hypothesis, and the six factor solution. The nine factor solution explained 55 percent of the variance in the correlation matrix, and the six factor solution 45 percent; thus both solutions provide relatively parsimonious yet complete representation of the data. In the nine factor solution, six of the nine initially hypothesized factors were confirmed. These were as follows:

1. Fashion conscious
2. Economy conscious (with a value conscious, price orientation
3. Socially conscious (influenced by others)
4. Perfectionist (maximizer orientation)
5. Satisficing-"good enough" orientation (however, this proved to be a more complex factor as discussed later)
6. A process efficiency-time efficiency shopper (this factor appears to measure shopping avoidance).

Factors not confirmed from the original hypothesis were the economy conscious orientation (having the high quality or functional orientation as well), the shopping hedonist orientation and the comparison shopper orientation. In place of these were factors interpreted as follows: national brand conscious, national brand conscious with a high price orientation, and an "information-satisfied" orientation (a factor measuring consumers' perceptions of being well informed and having enough information about products).

An examination of the nine factor structure suggested there were similarities among several of the factors. For instance, there were two factors measuring slightly different aspects of national brand consciousness, and two similar factors measuring satisficing strategies and a more parsimonious factor structure represented the data effectively. Thus, the six factor solution was calculated as the final solution. The six factor solution is presented in Table 1. The table reports the Likert scale items loading Each factor is also titled with an appropriate phrase indicating the interpretation of the decision-making trait measured by that factor.

Each of the six factors represents a relatively unique, separate and potentially very important consumer decision-making style trait. These traits can be described as follows:

1. PERFECTIONISM. This trait measures a consumer's search for the highest or very best quality in products. Those who score high on it appear to be seekers of the very best, while those scoring low are less quality or functionally oriented in purchasing. Those higher in perfectionism would also be expected to be more careful, systematic shoppers, or comparison shoppers. They are not satisfied with the "good enough" product. If the true "economic man" or maximizer exists, as some normative theorists posit, those scoring high on his factor would appear to fit that model.

2. VALUE CONSCIOUS, "VALUE FOR MONEY" ORIENTATION. Those scoring high on this trait are very conscious both of low price and receiving the "best value for the money". They appear to shop for lower price, sale prices, and shop carefully. In all liklihood they are comparison shoppers. They are neither style conscious nor brand conscious. This could be considered the archetype of the economy conscious consumer.

3. BRAND CONSCIOUSNESS. This trait measures consumers' orientations towards buying the most expensive, well-known national brands. Consumers scoring high on this would likely believe in the consumer decision rule that the higher the price of the product, the better its quality. They appear to prefer the better department and specialty stores, and have some amount of fashion consciousness, though not necessarily the highest level. Those scoring highest on this trait would probably buy little beyond the best known brands.

4. NOVELTY-FAD-FASHION CONSCIOUSNESS. Those scoring high on this trait are novelty seekers, and are fad and fashion conscious. They gain excitement and pleasure from seeking out new things. They are up to date in styling, and being in style is important to them. There are some indications that those scoring high on this trait may be less careful in shopping, and perhaps impulsive at times. They appear less price conscious when high style is involved.

This interesting trait suggests that some consumers dislike shopping and thus make shopping trips rapidly. They definitely do not view shopping as fun. Those scoring high on this trait may be the true "satisficers", those who are willing to make some sacrifices in quality in order to save time or achieve convenience.

6. CONFUSED, SUPPORT-SEEKING DECISION-MAKER. Those scoring high on this trait can be described as confused about the marketplace and the quality of different brand names. They view brands as little different from each other, and information confuses them. This may be why they indicate friends influence their choices and they seek information from friends. Support from such "significant others" reduces the confusion and makes decision-making easier for this type.

DISCUSSION

A parsimonious, six factor model of consumer decision-making traits has been identified quantitatively. The composition of these six factors suggests the construct validity of the six style traits of consumer decision-makers that are identified in the literature on consumer decision-making. However, though discussion of such consumer decision-making traits has precedent, rarely are traits actually measured in empirical research. The instrument used in this study is the first time that a measuring instrument has been developed to measure this range of decision-making style traits.

From the factor analysis results on such style traits, a profile of the consumer's decision-making style can be developed for a consumer. This is similar to developing a personality profile as done in psychological testing. A hypothetical profile of a consumer's complete decision-making style (a summary of style traits) might look like this:

PROFILE OF DECISION-MAKING STYLE

Subject's Name:

Decision-Making Traits (Summary of Test Scores):
1. PERFECTIONISM: moderate
2. VALUE CONSCIOUSNESS: high
3. BRAND CONSCIOUSNESS: very high
4. NOVELTY-FASHION CONSCIOUSNESS: very low
5. SHOPPING AVOIDANCE, SATISFICING STYLE: moderate
6. CONFUSED, SUPPORT-SEEKING DECISION-MAKER: low

TABLE 1
SIX FACTOR MODEL OF CONSUMERS' DECISION-MAKING STYLE TRAITS

Factor 1 -- Perfectionist - "Maximizer" Style	Loading
I make special effort to choose the very best quality products.	.84
Getting very good quality is very important to me.	.78
In general, I usually try to buy the best overall quality.	.67
When it comes to purchasing good products, I am a perfectionist.	.61
My standards and expectations for good products are very high.	.58
A product doesn't have to be perfect, or "the best", to satisfy me.	-.56
I take the time to shop carefully.	.43
I am often careless or impulsive when buying.	-.40
I am a well organized, systematic shopper.	.40
As long as a product is satisfactory, it doesn't have to be the best.	-.39
I am more concerned with the function and quality of products, rather than price and styling.	.37
I usually buy the first product or brand I find that seems "good enough."	-.35

Factor 2 -- Value-Conscious, "Value for Money", Low Price Style	Loading
I look carefully to find the "best value for the money."	.78
I carefully watch how much I spend.	.66
The lower price products are usually my choice.	.57
If you spend the time to shop, you'll save money and make better buys.	.55
I buy as much as possible at "sale" prices.	.53
I take the time to shop carefully.	.53
I prefer lower price products over stylish expensive ones.	.45
I am often careless or impulsive when buying.	-.42
I usually buy well-known, national or designer brands.	-.39
I only shop stores that are close and convenient to me.	.35
I usually compare at least three brands before choosing.	.32
Private brands or lesser-known brands are often as good as national or designer brands.	.30

(Continued)

TABLE 1 (Continued)

Factor 3 -- Brand Conscious, High Price Payer Style	Loading
Expensive brands are usually the best.	.64
The well-known national brands are best.	.63
The higher the price of a product, the better its quality.	.59
Highly advertised brands are usually very good.	.55
Nice department and specialty stores offer the best products.	.54
I usually buy well-known, national or designer brands.	.44
Private brands or lesser-known brands are often as good as national or designer brands.	-.39
A brand recommended in a consumer magazine is an excellent choice for me.	.38
I usually have one or more outfits of the very latest style.	.33
Today people realize that well-known brands are most desirable.	.33

Factor 4 -- Novelty, Aesthetic, Fad and Fashion-Conscious Style	Loading
Buying something new gives me a lift.	.72
It's fun to buy something new and exciting.	.70
Fashionable, attractive styling is very important to me.	.61
I often notice the styles and brands chosen by my friends.	.43
I prefer lower price products over stylish expensive ones.	-.38
Consumers need better information on products than they have now.	.35
I am often careless or impulsive when buying.	.33
I usually have one or more outfits of the very latest style.	.31

Factor 5 -- Shopping Avoider, Time Saver, Satisficer Style	Loading
Shopping the stores wastes my time.	.67
I make my shopping trips fast.	.55
I enjoy shopping just for the fun of it.	-.55
I usually buy the first product or brand I find that seems "good enough".	.50

Factor 6 — Confused, "Support-Seeker" Style	Loading
If a good friend recommended a brand, I would probably try it.	.56
My friends influence many of my choices of products and styles.	.45
All brands are about the same in overall quality.	.42
All the information I get on different products confuses me.	.39
The more I learn about products, the harder it seems to choose the best.	.31

(End)

Interpretation of Style:

> "(Subject's) style of purchasing is dominated by value-consciousness and especially brand-consciousness. Other decision-making traits appear less important though tendencies toward satisficing-maximizing behavior may appear in isolated decisions."

Categorizations of "high-moderate-low" scores on decision-making traits can be calculated from factor scores computed for each respondent. Calculation of factor scores by standard computational procedures are available in factor analysis computer programs on the market (e.g., SPSS, BMD). Appropriate norms and comparisons to the subject's own population (e.g., age group, grade level) could be calculated as well. This is parallel to the methods used in personality testing and psychographic-lifestyle measurement used by consumer and marketing researchers. Further categorization of decision-making styles could also be constructed by cluster analysis of the factor scores from the style trait data.

There are four especially notable findings from this research. First is the existence and potential importance of a "perfectionist" or maximizer decision-making style trait. The concept of maximizing behavior is central to economics and is a founding concept to consumer economists as well. This research documents the existence of this decision-making trait with more substance than done in many previous studies. However, the idea of perfectionism or maximization is to some consumer behaviorists what socialism is to a capitalist and alcohol to teetotalers: some believe that such normative concepts are inherently wrong, or at least territory to avoid. Therefore, a continued clash between economists and behaviorists on this controversial aspect will likely continue, though empirical data can mediate this disagreement.[2]

The second notable finding is the existence of a satisficing decision-making trait. What is particularly unique is that findings imply the satisficer is not simply a "good enough" or "value for money" buyer as sometimes thought. Instead, the satisficer may accept satisficing purchases because he or she is a time-saver and doesn't enjoy shopping. It follows that satisficing is the tradeoff that these consumers choose to make in order to conserve their more valued resource — time. Thus, satisficing is just one aspect of a fundamental decision-making style trait to these consumers: the attempt to shop quickly and efficiently while obtaining moderate (satisfactory) quality in products. All of this suggest the satisficing concept as applied to consumers needs to be broadened to note the more subtle motives underlying satisficing consumer choices.

Another particularly unique findings is the non-existence of a comparison shopper trait as hypothesized originally. Of course, comparison shopping is something done by many consumers, perhaps all at one time or another. However, the findings of this research suggest that comparison shopping is imbedded in other decision-making traits, especially perfectionism and value for the money, but is not necessarily a separable or uniquely identified decision-making trait by itself. Thus, comparison shopping is one facet of more fundamental decision-making traits, and it is a means by which consumers achieve the more salient traits of perfectionism or value for the money. Comparison shopping is a means to an end, but it is not an end of itself.

The fourth intriguing finding regards the existence of a confused decision-making trait not previously hypothesized. Those scoring high on this trait see little difference between products and may not be helped by traditional consumer information or education. This is overcome by seeking advice and support from friends or other opinion leaders. Such consumers could be especially important targets for programs of consumer education.

The next step in the development of consumer decision-making styles is to expand the inventory of style traits to consider other personality characteristics or style traits not completely covered in this study. For example, measures of consumers' propensity to seek information, process information, or avoid information might be added to the inventories. Such decision-making traits may exist, and though measured in this research, they did not yield unique factors. Other decision-making trait which may be important, but which did not appear as unique traits in this study, are impulsiveness and habitual buying. Finally, it may prove desirable to add measures of consumers' interest and involvement with specific products, such as foods, interior design, leisure, entertainment and so on. The present study focused attention towards novelty-fashion consciousness, which implies a certain set of products as well as a general decision-making style dealing with novelty-seeking behavior. Perhaps expansion of measures to a broader selection of consumer products may be desirable. It is also possible that some decision-making traits may not be general or may not influence all product categories, but apply to just specific product categories.

In short, we have not yet determined the optimal number of decision-making style traits to measure. Clearly this research shows there are at least six traits, but perhaps there are more. Personality tests used by psychologists often include far more than six or nine characteristics, and it may be necessary to do so in consumer studies as well in order to obtain complete profiles of decision-making styles.

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[2] In the Fall 1984 ACR Newsletter editorial, Jag Sheth, current president of the Association for Consumer Research and a noted behaviorist, advocated increased emphasis on normative approaches to the study of consumers. Thus discussion of this controversial facet of consumer decision-making is receiving renewed interest from the behaviorist community.

It is also necessary to validate measures against actual consumer behaviors. For example, do those measuring high in perfectionism make optimal choices when several brands of varying qualities are available? Do those high in fashion-consciousness actually buy the most innovative styles? Such validations of decision styles can be done and is a part of this research program.

When the preceding types of work have been completed, and studies of reliability and validity are expanded along lines done in this present study, it will be possible to standardize a test of decision-making styles. This standardization would be similar to the types of standardization and norming done in personality testing and vocational testing, areas familiar to most readers. Having such a standard test or profile of consumer decision-making styles could have broad application to work in consumer education, consumer research, family financial counseling, and personal self-assessment of one's decision-making style. For example, just as counseling psychologists use a variety of standardized personality tests with their clients, consumer or financial counselors could find tests valuable in counseling their clients on financial matters. Consumer researchers could add these decision-oriented traits to their broader inventories of psychographic and lifestyle traits. Consumer educators in the classroom could also measure decision-making styles of students, thus revealing to students their patterns of choice making and giving them a basis for changing or improving their decision-making styles to meet personal goals. Since much of consumer education is oriented towards helping individuals meet their goals, it would appear that having a standardized test to show students what their styles and goals are would be particularly helpful.

SUMMARY

This exploratory study conceptualized an initial nine trait model of consumer decision-making styles. An inventory of 50 Likert scale measures of the hypothesized nine decision-making traits was constructed and administered in an exploratory setting to 111 college student subjects from all class levels. Factor analysis of the inventories yielded a parsimonious six factor structure identifying six major decision-making traits: perfectionism, value consciousness, brand consciousness, novelty-fashion consciousness, shopping avoidance - satisficing style, and confused, support seeking decision-making. The six factors identifying decision-making traits appear to have high construct validity in explaining consumers' orientations toward market behavior. From these style traits, a profile of a consumer's decision-making style can be constructed.

Profiles of consumers decision-making styles can be useful to consumer educators, consumer researchers, and family financial counselors in a variety of settings. The measurements reported in this research provide a foundation for a standardized test or profile of consumers' decision-making styles that can be applied to these needs. Such a test would be unique to the consumer field, since no test or measurement of consumer behavior currently assesses the combination of consumer decision-making style traits including perfectionism, satisficing decision-making, and other aspects of decision-making integrated in this research.

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ORIENTATIONS TOWARD CONSUMERISM: A POLITICALLY BASED THEORY AND AN EMPIRICAL TEST*

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ABSTRACT

Some past studies concerning attitudes toward consumer public policy issues have attempted to distinguish characteristics of consumerism supporters from those of non-supporters. Results to date have been largely inconsistent. This study incorporates a solution preference dimension into the supporter/non-supporter analysis in order to help resolve past identification anomalies and to suggest a theoretical explanation for diverse orientations. More specifically, a two-dimensional theory of consumerism orientations is developed and tested as a special case of Rokeach's broader Two-Value Theory of Political Orientations. The survey data presented tends to generally support the hypothesized theoretical structure.

Consumerism research has not been very successful in either identifying consumerism orientations (i.e., consistent approaches toward consumer public policy issues) or in theoretically explaining those that have been identified. In its simplest and perhaps most common form it has treated consumers as a monolithic group which is either concerned or not so concerned about specific perceived inequities between consumers and other marketplace participants (particularly business organizations).

When subgroups have been analyzed, they usually have consisted of those who are relatively more concerned about such inequities (i.e., consumerism supporters) and those who are relatively less concerned (i.e., consumer non-supporters). Furthermore, although such studies have differentiated supporters from non-supporters across specific issues, they have not offered theoretical explanations for such orientations. Even demographic identification of these groups have been inexplicably variable from study to study.

The purpose of this paper is to include another dimension of orientations toward consumerism in an analysis which may help resolve past supporter/non-supporter research anomalies and which may suggest theoretical explanations for diverse orientations. The authors hypothesize that both supporter and non-supporter groups can be identified who also differ along a solution preference dimension. That is, some prefer a solution to consumer public policy issues which optimizes individual choice (e.g., warning labels on products posing a health risk). Other individuals, however, may prefer choice-limiting solutions (e.g., preventing products which pose a health risk from being sold at all). Furthermore, such consumerism support/non-support and choice-allowing/choice-limiting solution preferences toward consumer public policy issues seem to be a special case of broader political approaches. More specifically, the authors hypothesize that Rokeach's two-dimensional theory of political orientations offers a partial explanation for the two-dimensional model of consumerism orientations presented in this paper.

PRIOR RESEARCH AND CURRENT HYPOTHESES

The comparatively few consumerism studies which have attempted to discern differences among consumerism supporters and non-supporters have often yielded discrepant results. Apparent contradictions are particularly evident concerning certain variables such as age, income, education, and political party affiliation. Coulson, for instance, found more support for consumerism among the poorer, less educated, and older respondents [6]. In contrast, Hustad and Pessemier found supporters to be younger, more educated, and wealthier [10]. Likewise, Berkowitz and Letterman found the "socially conscious consumer" to be younger, more educated, wealthier, and more likely to be Republican [3].

More recently, Harris and Associates [8] found mixed results concerning age, education, and income and less equivocal results concerning political party affiliation. In contrast to the previously cited study, Republicans were found to be less consumerism supportive than the general public.

Indications of a Hidden Dimension

The reported inconsistencies in the above studies along the support/non-support dimension may be due to an unidentified confounding dimension. Certain of their exploratory findings suggest that possibility. In the Harris and Associates study, for instance, Democrats and Independents were found to be equally supportive of consumerism but supportive of different elements [8, p. 70]. Independents, for example, rated Nader less highly and offered less support for government regulation as a general principle.

Thorelli's results [18] likewise suggest a dimension other than simple support or non-support. He compared a sample drawn from the subscribership of Consumer Reports to a group of non-subscribers. The former group was found to prefer information solutions (e.g., warning labels on products containing saccharin) as opposed to the

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greater preference of the latter group for choice prohibiting protection (e.g., the prohibition of saccharin from sale). Individuals may thus differ not only in support/non-support but in solution preference as well. They may relatively prefer either choice-allowing government interventions or choice-limiting interventions.

Even if an individual is generally not supportive of government marketplace intervention, previous studies also suggest that the choice-limiting/choice-allowing preference dimension may still be relevant. Those classified as businessmen in many studies may be illustrative. They tend to be relatively non-supportive of government marketplace interventions but will more often support interventions which interfere least with business and individual consumer decision making (e.g., mandatory provision for consumer education and information). The Marketing Sciences Institute study, for instance, found that 79 percent of the senior business managers sampled agreed that high school students should be "required to study consumer affairs" [15, p. 76]. Gazda and Gourley likewise found agreement by their business sample to the statement "Business should be required to supply more information to consumers" while getting generally negative mean responses for other suggested interventions [7, p. 178]. Many businessmen, then, may be similar to the consumerism supporter who prefers choice-allowing solutions, but dissimilar in the sense that they are relative non-supporters who recognize fewer consumer problems and/or view them as being less severe.

The foregoing analysis thus suggests the following hypothesis:

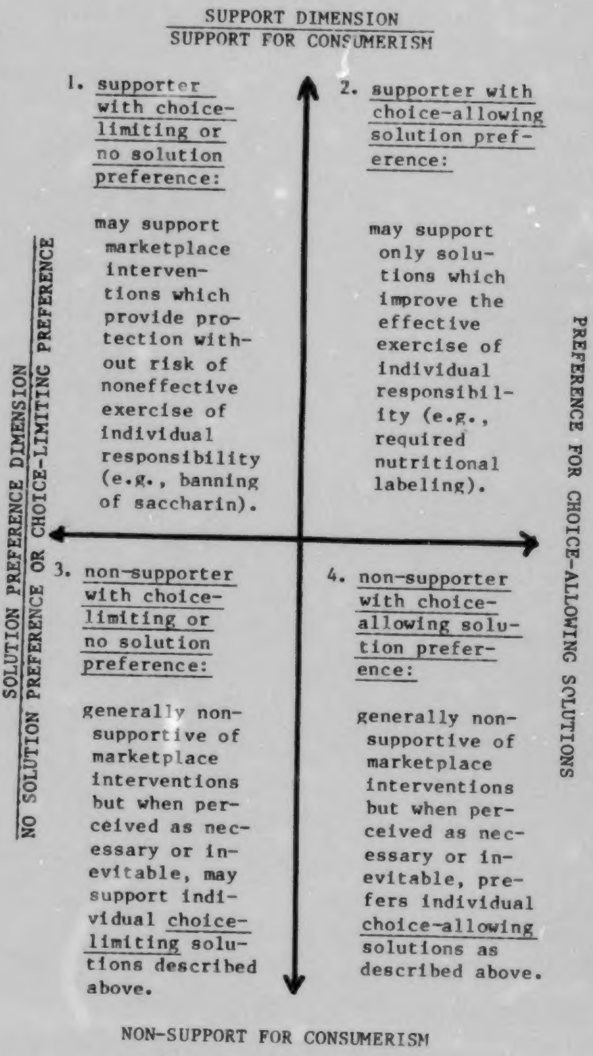
H_1 Groups of consumers can be identified who tend to differ across consumerism issues in both their relative support/non-support and their preference/non-preference for choice-allowing solutions to consumer problems. Furthermore, these differences combined form the four orientations suggested above and depicted in Figure A.

H_2 Some of the variables used to distinguish between support/non-support orientations in past studies with contradictory results may better distinguish between the heretofore confounding solution preference groups of Figure A.

Political Orientations and Approaches to Consumerism

To the extent that consumerism is a socio-political movement, one could reasonably expect that general political orientations may have a bearing on the orientations toward consumerism identified in Figure A. Those few studies which have explored the relationships between attitudes toward consumerism and general political predispositions have found significant association. For instance, in the 1971, 1973, and 1975 Barksdale et al. studies [1, p. 136], respondents who identified themselves as political liberals, as opposed to moderates and conservatives, were more critical of the methods and objectives of business and the current effectiveness of government in controlling business abuse.

FIGURE A. Orientations Toward Consumerism: A Two Dimensional Model


SUPPORT DIMENSION
SUPPORT FOR CONSUMERISM
1. supporter with choice-limiting or no solution preference:
may support marketplace interventions which provide protection without risk of noneffective exercise of individual responsibility (e.g., banning of saccharin).
2. supporter with choice-allowing solution preference:
may support only solutions which improve the effective exercise of individual responsibility (e.g., required nutritional labeling).
3. non-supporter with choice-limiting or no solution preference:
generally non-supportive of marketplace interventions but when perceived as necessary or inevitable, may support individual choice-limiting solutions described above.
4. non-supporter with choice-allowing solution preference:
generally non-supportive of marketplace interventions but when perceived as necessary or inevitable, prefers individual choice-allowing solutions as described above.
NON-SUPPORT FOR CONSUMERISM
SOLUTION PREFERENCE DIMENSION
NO SOLUTION PREFERENCE OR CHOICE-LIMITING PREFERENCE
PREFERENCE FOR CHOICE-ALLOWING SOLUTIONS

Herrmann [9, p. 4] and Harris and Associates [8, p. 70] similarly found that supporters of business critic Ralph Nader much more frequently characterized themselves as "political liberals" than did non-supporters. Past examination of the relationship between political orientation and consumerism orientation, however, has not gone much beyond such liberalism/conservatism and supporter/non-supporter ex post facto linkage.

As implied earlier, a theoretical void seems to exist concerning consumerism behavior (i.e., consumer political behavior). The writers, therefore, felt that theories of political orientation may have heretofore unexplored relevance to the development of a theory of orientations toward consumerism. Rokeach's Two Value Model of Political Orientation [17, pp. 165-207], for instance, seems to reinforce and/or expand the understanding of the consumerism orientations presented thus far.

Rokeach contends that one's political orientations are largely determined by how highly he/she values equality and freedom. Equality involves questions concerning desired power distributions among competing groups (e.g., social classes). Freedom involves questions concerning desired decentralization of decision making within groups (e.g., autocratic vs. democratic control).

The above model is hypothesized to be related to consumerism orientations in the following manner:

H_{2a} The Rokeach defined value of equality is positively related to support for consumerism.

H_{2b} The Rokeach defined value of freedom is positively related to a choice-allowing solution preference for consumer problems.

Traditional consumerism is a movement predicated on the belief of supporters (cells 1 and 2, Figure A) that consumers or consumer roles lack power (i.e., equality) vis a vis seller roles. Non-supporters, on the other hand (cells 3 and 4, Figure A), may not perceive a power imbalance and/or may find justification for such an imbalance. Therefore, supporters may tend to rank equality relatively more highly than do non-supporters. Consistent with this hypothesis, Hustad and Pessemier in an exploratory analysis found that their anti-business (i.e., consumerism supporters) groups did value equality significantly higher than did their pro-business (i.e., consumerism non-supporters) group [10, p. 322].

Concerning the freedom/solution preference hypothesis (i.e., H_{2b}), those who prefer decentralized distribution of decision making power among individual consumers (i.e., cells 2 and 4, Figure A) may also value freedom relatively highly. Others may prefer a more centralized approach with consumer leaders and experts making decisions on behalf of consumers (i.e., cells 1 and 3, Figure A). As a group, they may be representative of those who value individual freedom relativley lowly.

METHODOLOGY

Sample

In order to empirically test the hypotheses presented in this paper as well as others, questionnaires were sent to 1,244 randomly selected consumers in the Madison, Wisconsin and Rockford, Illinois, metropolitan areas as part of a larger USDA-SEA Hatch Project. The final sample consisting of 621 usable instruments (54 percent net return) was limited in ways other than geographic distribution. It was more educated and had a higher percentage of males than the population at large, and in general underrepresents the extreme socio-economic groups. The reader should thus be cautioned against generalizing any single variable's results to the entire population. However, such demographic underrepresentativeness becomes important to the theoretical purposes of this study only to the extent that any unforeseen interaction effects confound the tests of the hypothesized relationships.

Questionnaire and Data Base

The section relevant to classifying respondents into consumerism orientation types asked two Likert items each concerning five issue areas (Table 1). One item stated a choice-allowing solution to the issue (e.g., government labeling requirement) while the other stated a choice-limiting solution (e.g., banning a product from sale). Responses to the latter were subtracted from responses to the former and totaled across issue areas as a scale of choice-allowing solution preference. Responses to the two items were also added and totaled for a scale of consumerism support/non-support.

In order to maximize statistical power, a classification procedure was used which included all respondents and divided them as equally as possible into the four hypothesized groups of Figure A. The preference scale was first used to divide individuals into relative choice-limiting and choice-allowing preference groups on the basis of the median score. Each of these groups in turn was divided into support/non-support groups on the basis of their respective median scores on the support/non-support scale.

Another section of the questionnaire represented a modified Rokeach value survey. Respondents were asked to rank a list of nine terminal values according to importance to them. Other researchers have apparently used such shortened versions effectively [17, pp. 207-211]. In addition, Likert-type measures of the importance to respondents of equality and freedom were included.

Statistical Procedures

The statistical analyses presented in this paper include an examination of the individual items of the classification scales discussed above. Correlations are presented between each issue response and the rest of the respective scale as a measure of consistency across issues. Cronbach's alpha is also presented as a measure of both scales' internal consistency or reliability.

The groups classified on the basis of these scales are then compared in terms of previously suggested discriminating variables along each hypothesized dimension. That is, non-supporter groups (i.e., 3+4, Figure A) are compared to supporter groups (i.e., 1+2) and choice-limiting groups (1+3) are compared to choice-allowing groups (2+4). Group means are presented and t tests performed for all variables. The Rokeach

TABLE 1. Consumerism Support and Solution Preference Scales (N = 588)

SURVEY RESPONSES (Possible responses: 1, negative to 5, positive) Government should:	Support Scale[a] (a + b) MEAN (STD DEV)	Support Scale[a] (a + b) item/(scale-item) R[b] (SCALE-ITEM)	Choice-Allowing Preference Scale[a] (a − b) MEAN (STD DEV)	Choice-Allowing Preference Scale[a] (a − b) item/(scale-item) R[b] (SCALE-ITEM)
1. a) "...require sellers to inform purchasers of the levels of certain characteristics of their products." b) "...prohibit the sale of products that do not provide purchasers with some minimal level of certain characteristics."	8.12 (1.98)	.59 (.0001)	.93 (1.30)	.38 (.0001)
2. a) "...require sellers to inform purchasers of any possible negative effects of their product on the environment." b) "...prohibit the sale of those consumer products which may result in negative effects on the environment."	8.25 (2.00)	.64 (.0001)	.65 (1.21)	.34 (.0001)
3. a) "...require sellers to provide adequate warning information about the health risks of their products." b) "...prohibit the sale of products which can possibly be dangerous to consumers' health."	8.36 (1.77)	.62 (.0001)	1.13 (1.42)	.53 (.0001)
4. a) "...require sellers of products for young children to inform purchasers of the levels of certain product characteristics." b) "...prohibit the sale of products for young children that do not provide them with some minimum level of certain characteristics."	8.42 (1.89)	.61 (.0001)	.60 (1.22)	.43 (.0001)
5. a) "...urge individuals through public service announcements and/or education programs to plan their own finances for their retirement years." b) "...require individuals to contribute a portion of their income to provide support for themselves in their retirement years."	7.40 (2.03)	.32 (.0001)	.92 (2.08)	.18 (.0001)

[a] Cronbach Alpha = .793 for Support Scale; .758 for Solution Preference Scale

[b] Spearman Rho nonparametric correlations between item and other items in scale

ordinal measures are also tested using the nonparametric two sample median test.

Finally, two canonical discriminant analyses are conducted as a means of determining the multivariate relative contributions of each variable in differentiating the identified groups along each orientation dimension. That is, the best canonical combination of discriminating variables are determined for the supporter/non-supporter group distinction and for the choice-allowing/choice-limiting group distinction. The standardized coefficients for all variables along each dimension are determined in order to directly compare their non-redundant discriminating ability.

UNIVARIATE RESULTS

The components of the "support" and "solution preference" scales are shown in Table 1. Means, standard deviations, and Spearman correlations with other items are given. The probability level of each component's correlation with a composite of other items in each scale is highly significant, giving some credence to the hypotheses of consistency across issues in both the support and solution preference dimension. Reliability for each scale as measured by Cronbach's alpha was found to be .793 and .758 respectively.

Table 2 summarizes univariate relationships between the hypothesized dimensions and a variety of potentially discriminating variables. That is, variable differences between support and non-support groups and between choice-allowing vs. choice-limiting groups are presented and evaluated. Among the categories of variables analyzed are: 1. alternative consumerism support measures; 2. demographic and political variables occasionally found related to consumerism support/non-support in previous research; and 3. the hypothesized Rokeach variables.

TABLE 2. Group Mean Difference Along Support and Solution Preference Dimensions^a (groups as depicted in Figure A)

	SUPPORT DIMENSION			SOLUTION PREFERENCE DIMENSION		
	Non-Supporter Groups (3+4, Figure A)	Supporter Groups (1+2, Figure A)	t	Choice-limiting Groups (1+3, Figure A)	Choice-allowing Groups (2+4, Figure A)	t
CONSUMERISM SURROGATES:						
Nader (1, neg. to 5 positive)	2.99	3.71	-6.89***	3.38	3.36	.15
Desirable business power (-4 to +4)	-.91	-1.62	5.25***	-1.32	-1.24	-.58
DEMOGRAPHICS:						
age (years)	41.17	42.19	-.74	45.64	37.61	6.01***
education (years)	14.81	14.39	1.57	13.97	15.25	-4.89***
sex (1,F; 2,M)	1.65	1.53	3.14*	1.58	1.60	-.48
family income^b	3.52	3.24	2.42	3.19	3.56	-3.18**
POLITICAL IDENTIFICATION: (1, neg. to 5, positive)						
Democrats	2.84	3.23	-3.74***	3.13	2.95	1.79
Republicans	3.29	2.89	3.84***	3.09	3.06	.24
Independents	3.16	3.26	-1.03	3.06	3.38	-3.49**
POLITICAL VALUES: rank measured: (1 highest; 9 lowest)^c						
FREEDOM	2.99	3.17	-1.01	3.40	2.74	3.78**^{c}
EQUALITY	5.71	5.14	3.00**^{c}	5.32	5.49	-.29
interval measured: (-8 to 8)						
FREEDOM	1.71	1.72	-.08	1.44	1.99	-3.34**
EQUALITY	1.39	1.85	-2.68*	1.56	1.71	-.83

significance levels: *.01 **.001 ***.0001

[a] groups approximately evenly divided; DF varies from 530 to 601 depending on missing values for each variable

[b] income categories: 1) less than $7,000; 2) $7,000 to $13,999; 3) $14,000 to $20,999; 4) $21,000 to $27,999; 5) $28,000 or more.

[c] significance test confirmed by nonparametric median 2- sample test

Consumerism Surrogates

Consumerism surrogates were largely included for purposes of checking the criterion-related validity [11, p. 82] of the support/non-support group distinction. That is, if these groups do differ as to their approach to consumerism, that difference should be reflected in their responses to salient consumerism referents such as Ralph Nader. As expected, non-supporter groups (3 and 4) together rate him somewhat negatively (i.e., $\bar{X} < 3$) while the supporter groups (1 and 2) rate him significantly more positively (i.e., $\bar{X} > 3$).

Similarly, negative attitudes toward business have been used as a surrogate measure for support of the movement [e.g., 10]. Consistent with that premise, the present study shows supporters desiring significantly less power for business than do non-supporters. Both surrogates thus offer some evidence for the validity of the support/non-support group distinction and the consumerism support scale (Table 1) upon which it is based.

Demographics and Political Identification

Only certain demographic and political variables occasionally found to be related to support/non-support of consumerism in past research were found to be so in this study. However, all others were found to be significantly related to the solution preference dimension. Some support is thus offered for the authors' suspicion that anomolous demographic and political identification of supporters/non-supporters in past studies may have been due to confounding with the solution preference dimension. That is, some studies may have been inadvertently identifying mostly choice-allowing supporters or even relative non-supporters while others may have been identifying mostly choice-limiting supporters.

The results of this study (Table 2) indicate consumerism support is positively related to identification with Democrats and negatively related to identification with Republicans and to sex (male). A choice-allowing solution preference, on the other hand, is positively related to education, family income, and identification with Independents, and negatively related to age.

Rokeach Values

Concerning the theoretically hypothesized relationships with the values of freedom and equality, the results were generally supportive. Both the Rokeach ranked measures and the Likert-type scales significantly differentiated the groups. Furthermore, the groups differed on these measures along the specifically hypothesized dimensions. As hypothesized, Table 2 shows that consumerism supporters ranked equality significantly more highly than did non-supporters while rankings of freedom did not differentiate the two sets of groups. Likewise, choice-allowing preference groups ranked freedom significantly more highly than did the choice-limiting groups while these two sets of groups did not differ on their rankings of equality.

MULTIVARIATE RESULTS

The discriminate analyses summarized in Table 3 essentially support the conclusions that can be drawn from the univariate analysis. For instance, an inspection of the standardized coefficients of the canonical combination distinguishing supporters from non-supporters reveals that equality remains a relatively important, non-redundant, and positive determinant. It evidently offers information not subsumed by the demographics or even the political identification variables.

The standardized coefficients of the canonical combination differentiating choice-allowers from choice-limiters, likewise show freedom to retain and even improve its relative importance. As in the univariate analysis, however, age remains the most important determinant in this dimension. On the other hand, as could have been expected, education and family income are reduced in relative importance since these variables often contain redundant information.

The variable that attains considerably more importance than the univariate analysis would suggest is identification with Democrats. The Madison, Wisconsin sample was composed of largely young Democrats as opposed to older Republicans in the Rockford sample. Age and Democrats were thus confounded in the univariate analysis. That is, Democrats do not show a negative relationship with choice-allowing solution preference because their relative youth counterbalances the effect. In the discriminant analysis, however, with the effects of age controlled, positive ratings of Democrats show a relatively important negative relationship with choice-allowing group membership.

TABLE 3. Discriminant Analysis: Standardized Coefficients of Canonical Combinations Along Each Dimension

Relative Contributions Along SUPPORT DIMENSION (Groups 3+4 vs. 1+2)		Relative Contributions Along SOLUTION PREFERENCE DIMENSION (Groups 1+3 vs. 2+4)	
rank			
1 Equality[a]	.435	1 Age	-.703
2 Republicans	-.427	2 Democrats	-.373
3 Sex	-.371	3 Freedom[a]	.366
4 Democrats	.334	4 Family income	.293
5 Freedom[a]	.245	5 Education	.245
6 Independents	-.242	6 Independents	.204
7 Education	.222	7 Equality[a]	-.143
8 Family income	-.155	8 Republicans	-.121
9 Age	-.135	9 Sex	-.109
canonical corr = .259 df 9/501 F = 4.006 prob < .0001		canonical corr = .302 df 9/501 F = 5.5867 prob < .0001	

[a] interval as opposed to ordinal measures depicted in Table 2.

CONCLUSIONS

Upon consideration of the results as depicted above, the writers tentatively conclude that the solution preference dimension of consumerism orientations may be as important as the support dimension. Several variables inconsistently associated with the latter in past studies, such as age, income, and education, discriminated better along the former dimension in the current study.

Adding further evidence for the construct validity of the two dimensional model is its theoretical relationship to the Rokeach political values of equality and freedom. Consumerism and, more generally, politics involve questions concerning power distribution among groups and degree of centralization of decision making. The value of equality influences attitudes toward the former such as toward support/non-support of consumerism; the value of freedom influences attitudes toward the latter such as toward preference for choice-limiting or choice-allowing government interventions. Both values were found to significantly differentiate among consumerism orientations in the hypothesized manner. Furthermore, in the discriminant analyses they maintained much of their relative differentiating ability even when considered in conjunction with demographics and more specific political variables.

The model of consumerism orientations which emerges from the above analyses has implications for all those concerned with the consumer interest: consumer researchers, educators and advocates, business, private/public consumer representatives, and political parties and leaders. Perhaps the most important implication for all of the above groups is that public concern for a problem should not necessarily be interpreted as a monolithic call for action regardless of solution approach. The present study indicates that many who are concerned about a problem, as well as many who are relatively unconcerned, may view a choice-limiting solution as being as detrimental or even more so than the problem itself.

Specifically for consumer educators, an important question raised may be whether political value clarification should be taught in a manner similar to the more traditionally taught purchase value clarification. If students can be taught to identify the relative importance of freedom and equality in their own value systems, they may be able to more efficiently choose compatible consumer public policy positions.

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COMMENTS ON PAPERS BY SIMON, SPROLES, AND KROLL & STAMPFL

Robert N. Mayer, University of Utah[1]

ABSTRACT

While these three papers share very little in terms of subject matter, they are all ambitious and methodologically-sophisticated investigations of important consumer topics.

SIMON

It is obvious why the paper by Alice Simon received an ACCI research award. It demonstrates a command of both theory and research methods; it is written forcefully and clearly; and it has important implications for consumers.

Since no research is perfect, it is still possible to make a number of suggestions and criticisms of the paper. First, there is some imprecision regarding the exact question that the paper is addressing. The paper begins with a comparison of three approaches to the study of consumer behavior, yet only Ironmonger approach is operationalized. Then, most of the paper builds toward the finding that forty percent of IRA purchasers can be classified as "efficient" (as the term is defined in this paper), but the paper does not develop a basis for judging this percent as either high or low. The paper also contains descriptive findings on what differentiates efficient and inefficient purchasers of IRAs, but again this information is not placed within a conceptual framework.

I have some minor objections to the way the existence and importance ratings were coded. It seems to me that fitting everything into rankings of either 1, 2, or 3 is a bit artificial and involves a potential loss of information. For example, the expert ratings of the degree to which an IRA required input from the consumer ("management") result in scores of 21.07 for the brokerage and investment category, 5.00 for the savings category, and 3.93 for the annuities category. In this instance, there is a tremendous difference between the former category and the latter two, but the scoring system implicitly assumes that the difference between a score of 1 and 2 is the same as the difference between 2 and 3. It is even possible that the difference between the scores for the saving and annuities category is not statistically significant. The same problem applies to the importance scores. I appreciate the author's desire to have scores which can be easily used to compare existence ratings and importance ratings, but I would recommend using a coding system which is a bit more sensitive to the exact magnitudes of the ratings.

My only serious reservation about the paper stems from the nature of the sample used in the study. The findings are based on responses from only those households which had already purchased an IRA. The strength of this approach is that one can analyze real rather than hypothetical purchase behavior. The problem with this approach is that it raises the possibility that people's importance ratings have been influenced by the characteristics of the IRA they selected. In other words, people may be classified as efficient consumers simply because they have little tolerance for post-purchase cognitive dissonance and have therefore changed their importance ratings so as to justify their decision.

To me, the plausibility of this alternative interpretation is increased by the counter-intuitive characteristics of the supposedly efficient households. One would think that efficient consumers would be characterized by high levels of information, education, experience with IRAs, and search. The results reported are exactly the opposite; "households who are more likely to purchase their ideal IRA had been exposed to the financial institution which provided their ideal IRA through the purchase of other financial services, had relatively fewer years of education,...were not familiar with tax sheltered investments in general, had lower incomes, were newly eligible to purchase IRAs, were not self-employed but members were working as wage and salary workers, and found the IRA selection process to be fairly simple." If this alternative interpretation has any validity, so-called efficient consumers may be those people who make an IRA decision without much thought (and therefore efficiently in terms of search costs) and who then form or adjust their importance ratings to justify their decision. The optimal way to eliminate this alternative interpretation is with panel data which allow one to measure importance ratings both before and after the purchase of an IRA. Dr. Simon has already demonstrated that she would be worthy to conduct this type of extension of her research.

SPROLES

George Sproles' paper, "From Perfectionism to Fadism: Measuring Consumers' Decision-Making Styles," is so ambitious, so sweeping in intent, that it is difficult to decide whether to praise what he has accomplished or criticize what he has not. Sproles' intent is to elucidate and measure a concept of consumer personality analogous to the more general concept of human personality used in psychology--no small task. He sets reasonable criteria for a measure of consumer personality; he performs a competent statistical analysis of his data, with all the appropriate caveats; and he suggests directions for future research.

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The major problem with the paper, as I see it, is that the data collection and analysis are not adequately guided by theory. Not all papers have to be theoretical. However, this paper suffers from a basic confusion about what it is really studying.

Sproles correctly states at the outset that the most important step is to establish a conceptual framework for analyzing consumer decision-making styles. But he then essentially abandons this challenge by noting that the literature on this subject is "conceivably endless." Instead, Sproles opts for a less formal approach by which he identifies nine decision-making style traits based on his reading of the literature. By relying on this almost intuitive method, the author commits a major conceptual error. He confuses the *goals* of consumer decisions with the *process* of consumer decision making.

Let me elaborate. Sproles is presumably studying consumer decision-making *styles*. To me, this term implies the process by which consumers make up their minds, including the acquisition and consideration of information as well as the weighing of alternatives. In contrast, most of Sproles' nine hypothesized decision-making style traits refer to the goals of decision making, not the process itself. For example, to say that a person is fashion conscious or economy conscious or quality conscious or brand conscious is a statement about *what they want*, not how they decide. Even calling someone a "shopping hedonist" is not a description of their decision-making style. Rather, it is another of way of saying that they derive satisfaction from shopping, just as a fashion conscious consumer derives satisfaction from acquiring the latest styles. Of the nine hypothesized traits, only the one called "comparison shopper/rational shopper" seems to refer to the process rather than the goals of decision making (and it was not confirmed in the factor analyses).

Further evidence for the confusion between decision making goals and means can be seen in the way Sproles uses the terms "perfectionist," "maximizer," and "satisficer." The two former terms refer to an individual who wants the highest quality in the products they buy. The term "satisficer" is used to describe an individual who doesn't spend very much time shopping and who doesn't seem to enjoy the process of shopping for its own sake. Sproles clearly means to suggest that these are two distinct decision-making styles. From an economist's point of view, both of these types of individuals are utility maximizers. The only difference between them is what they are trying to maximize. Indeed, these two individuals may have the same decision-making styles; they may both shop in the same types of stores, acquire the same amount of information, and weigh alternatives in the same manner.

In sum, my main recommendation to the author is to decide what he is really interested in studying--consumer decision-making goals or processes. Once this is clarified, I would also urge the author to draw on existing research to conceptualize a relatively exhaustive set of dimensions to be measured. For example, if the author is really concerned with goals, then perhaps the literature on consumer risk perception or the literature on the hierarchy of needs would be useful in identifying broad classes of consumer goals. If the author is really interested in decision-making processes, as I suspect he is, then he should derive dimensions based on the literature on how consumers acquire, integrate, and evaluate information. This could also include consumer methods of defining, comparing, and selecting among alternatives. Whichever direction is pursued, the research will remain extremely ambitious and potentially very useful.

I have a few final suggestions. Sproles states that the concept of a consumer decision-making style implies that most or all the consumer's choices are influenced by one or more specific decision-making traits. To see whether such traits and styles exist and whether they apply across purchases, it might make sense to use items that are more product-specific than the items used in this study. Then responses to similar items referring to different types of purchases could be compared. For example, if a consumer consults *Consumer Reports* for certain kinds of purchases but not for others, then perhaps his/her decision-making style needs to be described on a product specific basis. Similarly, once traits have been adequately conceptualized and measured, they should be validated by examining their actual relationship to a variety of consumer purchases. Finally, future studies of consumer decision-making styles should be sure to include measures of those personal characteristics--like income and discretionary time--which presumably influence the consumer choice among decision-making styles.

KROLL AND STAMPFL

It is a pleasure to discuss the paper by Kroll and Stampfl because it embodies many of the best qualities of research. The potential problem in discussing such a fine paper is that the authors don't leave you much to say. Fortunately, Kroll and Stampfl only briefly discuss the implications of their findings, thereby leaving me with something to say.

The paper, "Orientations Toward Consumerism," is exemplary in many respects. First, it doesn't try to reinvent the wheel; rather, it builds upon and resolves inconsistencies in past research. The authors note the very different pictures that have been presented of consumerism's supporters, especially regarding their demographic, socioeconomic, and political ideological characteristics. By demonstrating that there are essentially two modes of support for consumerism which vary in the type of policy solutions individuals prefer, Kroll and Stampfl largely resolve the inconsistencies in prior research.

A second respect in which the paper is exemplary is its attempt to place orientations toward consumerism in the context of broader political values. By showing that support for consumerism is positively correlated with the value one places on equality, Kroll and Stampfl tell us something important about the nature of consumerism. This finding shows the affinity of consumerism with other social movements which seek greater equality--for example, civil rights and feminism.

I will confine my criticisms of the paper to two issues of measurement. First, it seems to me that the questions used to measure support for consumerism and solution preference are vague and therefore might not be as valid and reliable as one might like. Consider the first two items: (1) whether the government should "require sellers to inform purchasers of the levels of certain characteristics of their products" and (2) "whether the government should prohibit the sale of products that do not provide purchasers with some minimum level of certain characteristics." The vagueness of these questions makes it quite possible that a given respondent may be thinking of two very different policy issues when answering each of these questions. If this occurs, it would decrease the ability of these questions to measure solution *preference*. Similarly, the vagueness of the questions makes it possible that two people holding identical views regarding support for consumerism and solution preference might give quite different responses because they interpret the questions differently. For example, one respondent might answer affirmatively to the question of whether sellers should inform consumers because he/she is thinking of a safety-related characteristic, like the level of tar and nicotine in a cigarette. A second respondent might answer that sellers do *not* have to inform purchasers because he/she is thinking of a different characteristic, say, how long the tobacco has been aged. A better approach might be to use specific and actual consumer issues where the choice between choice-allowing and choice-restricting solutions is a meaningful one. There is an abundance of such issues: whether to ban saccharin or require warning labels; whether to set minimum energy efficiency levels for appliances or require energy efficiency labels; whether to set usury limits or require disclosure of interest rates; whether to mandate safety features on new automobiles or issue crashworthiness ratings.

My second criticism regarding measurement can be stated more briefly. In the text, the authors imply that the solution preference dimension contrasts people who prefer choice-limiting solutions to those who prefer choice-allowing solutions. In the figures and tables, however, one sees that the real contrast is between those who prefer choice-limiting solutions *or who have no solution preference* with those who prefer choice-allowing solutions. In other words, a person who is classified as preferring choice-limiting solutions might still be quite supportive of choice-allowing solutions, just equally so. At the very least, the authors should be explicit about why they chose (or were forced) to divide the solution preference dimension in this way.

I stated earlier that Kroll and Stampfl say very little about the implications of their findings. One very important implication is that consumer protection policies should be tailored to the type of consumer who is most likely to be affected. Consider the finding that lower income consumers were less favorable toward choice-allowing solutions than consumers with higher incomes. Since people with lower incomes are more likely to buy used cars than more affluent people, this finding would support a policy of requiring all used cars to be repaired before resale instead of having a defects disclosure sticker (like the one considered by the FTC). As another example, consider the finding that older respondents were less favorable toward choice-allowing solutions than their younger counterparts. This might suggest restricting the availability of a new anti-arthritis drug with possible side-effects rather than requiring it to carry a warning label.

A second possible implication of Kroll and Stampfl's findings has to do with the political strategy of the consumer movement. Their research suggests that coalition building should depend on the type of solution being advocated. For example, organized labor would be a likely supporter of choice-restricting solutions. Conversely, environmental organizations--with their younger, white-collar, and affluent constituencies--would be more likely to be helpful when consumerists are pursuing choice-allowing policies.

I have two final thoughts. First, it would be fascinating if Kroll and Stampfl would take their research one step further by seeing how the *behavior* of their four groups differs. One might examine their voting, their propensity to lodge consumer complaints, or their tendency to join consumer organizations. Second, the authors might ponder the possible existence of additional solution preference dimensions. For example, many states are currently deciding whether auto safety should be increased through mandatory seat belt use laws or the installation of passive restraints. Both of these solutions are choice-restricting; the difference between them is whether they require behavioral change or technological change. Other solution preference dimensions probably exist as well which might modify or amplify the findings presented by Kroll and Stampfl.

CONSUMER REPORTING: PROBLEMS OF CONVEYING CONSUMER INFORMATION THROUGH THE MASS MEDIA

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PURPOSE

Consumer information has long been recognized by those promoting the consumer interest as one of the most important factors in consumer decision-making. However, consumer information derived from news reporting has not often been addressed. The purpose of the roundtable discussion was to acquaint the ACCI membership with the various barriers and filters reporters encounter when disseminating consumer information in the mass media. Using empirical and theoretical sources, the presenters focused on how the barriers shape, distort, or prevent the reporting of consumer issues.

INTRODUCTION

Consumer information has been defined as "any factor which is potentially relevant to the decision to purchase goods and services" (1). To allow consumers to function competently, various sources of information have been investigated or purposed by consumer interest professionals. However, consumer professionals have often overlooked the mass media, in general, and news reporting, specifically, as a source of consumer information.

The presenters identified the following types of consumer reporting in the mass media:

- "How to" articles
- Action line reports or question/answer formats
- Current topics
- Research reports on new products/services
- Price and Quality comparisons
- Investigative consumer reporting
- Regularly appearing consumer columns or consumer segments that cover a variety of topics (syndicated or staff generated)

The word "gatekeeper" refers to any factor in the news gathering or news production process which can influence the flow of information to the public. Therefore, gatekeeping represents barriers or filters to the dissemination of consumer information. Individuals in the gatekeeping role can be reporters, writers, producers, editors, administrators, owners, publishers and corporate heads.

FILTERS/BARRIERS

The main filters and barriers that shape, distort, or prevent the reporting of consumer issues were:

- Organizational and Industry Structure
- Impact of ratings, competition, and entertainment format on consumer news
- Constraints of processing the news
- Constraints of personnel and budget
- Reporters' professional socialization process

DISCUSSION QUESTIONS

The presenters concluded their introduction and background summaries with the following questions for discussion:

1. Should reporters specialize in consumer reporting with a consumer beat, or should general reporters receive training in gaining a "consumer awareness" or a "consumer angle" to any news story?
2. Can reporters cover consumer issues without having editors, publishers and advertisers accuse them of being "antibusiness"?
3. Is consumer reporting always "advocacy reporting"? (Journalists are socialized to believe that consumer reporting is advocacy reporting).
4. Can consumer issues ever be adequately covered by the mass media as long as the media are owned by national and multinational corporations and are dependent on advertisers' support?
5. How can consumer-interest professionals reach out to the news media to add their often missing input into the coverage of consumer issues and events?

COMMENTS

The twelve participants in the roundtable offered a broad scope of concerns and interests about conveying consumer information through the news media. Some of the individual participants' observations were:

- Extension Home Economists and Specialists are an untapped resource for a continuous consumer news-source flow.
- Consumer interest professionals have inadequate skills and resources to market their views to the media.
- The media should provide a consumer-education function in their reporting.
- Gatekeeping realities should be introduced in the classroom to teach students about the business of news.

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THE IMPACT OF HOME COMPUTERS ON FAMILY LIFE

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Consumer educators have been involved with studying the decision-making process in the purchase of many types of consumer products for many years. Thus, there is precedence and need for objective evaluation of the use and impact of home computers on family life; including an examination of educational uses, effect of the purchase of the home computer and the continuing purchase of necessary supplies on the family budget, and objective guides for the purchase of home computers.

There are a number of studies now being conducted on the effect and influence of personal computers on family life. Few have been reported on or published to date. These studies have barely begun to examine the broad impact of the home computer on families. The results of four representative studies were discussed.

Education of the children is one of the primary motivations for buying a home computer (1). It was revealed that few of the families followed through by purchasing commercially prepared educational programs. The main educational use was word processing and programming.

The study concluded that home computers actually reinforce, rather than alter, existing patterns of family behavior and interaction. Not every family continued to use the computer after making theititial purchase, finding that the computer didn't fulfill its promises.

When parents were more involved with the computer, there was a different result (2). When students used computers in a "summer camp" setting, the computers were also introduced into the households of these urban, low-income families. Unlike the previous study, considerable parental involvement was engendered by requiring parents to attend a session orienting them to the computer.

After attending "camp", the children spent much time at home pursuing their interest in learning more about their computers. In turn, the children taught other family members and others in the community. Dramatic changes were observed in the students. They grew in feelings of accomplishment and had improved attitudes towards learning.

In an examination of the computer's effect on family interaction and family time use (3), one of the concerns was with using the computer for management of the home. At least one family reported using the computer for each of the 14 home management activities listed, such as controlling the heating/cooling system for maximum efficiency, diet analysis, or most commonly, budgeting.

The majority of computer time was for entertainment. Only three families reported no perceived changes in family relationships after acquiring the computer.

A pervasive impression left by these studies is that althought there are many real uses of the computer for education and to manage the home, the computers available today are not really able to do this efficiently. This is reflected in the infrequent usage for much more than playing games. It often takes much more effort to do many of these home management tasks on a computer than to do them manually or with pencil and paper.

Overall, there is at this time, no compelling reason to buy a home computer to better manage the home. There hasn't been a program developed yet that really represents a breakthrough, a reason that one "must" have a home computer!

These studies represent a beginning of the examination of the uses of a home computer and its influence on family life. There has been no examination of the effect of the purchase on the family budget, nor have there been research based, objective guides to buying and using a home computer.

A much different approach was taken with families that didn't own home computers. They were extensively surveyed about their impressions of a broad range of information technologies and of how they perceived the impact of that technology on the family.

A generally positive attitude was indicated towards cable tv and personal computers, with interest in acquiring them. Part of the positive bias was based on their naivete' towards the technologies. The great "promises" of how wonderful these technologies would be, had not yet been dashed by the realities of the actual limitations of these technologies.

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A NATIONAL SAMPLE OF CONSUMER EDUCATION CURRICULUM MATERIALS

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ABSTRACT

Consumer education materials which have been adopted for use throughout the nation were examined to provide insight into the types and characteristics of materials most often used and the content most often included in Consumer Education courses.

Consumer education has existed as an educational topic since the 1930's. The depressed economy of those times intensified the need for consumers to have information about products and to know how to use this information to "get the most for their money." Economic and societal changes have created a need for continuous revisions in materials used to teach this topic. Effective consumer education materials, as all effective educational materials, must reflect the needs of the population served as well as the current societal trends (4).

Current educational resources which meet the needs of students become even more critical when one examines the numerous, recent studies of American schools. Several studies have identified the importance of the knowledge and skills common to consumer education:

> -In The Paideia Proposal Mortimer stated, "The external, physical, material conditions of a good human life, necessary as they are, remain by themselves insufficient. They must be put to use by the individual that the quality of his or her life is enriched internally as well as externally (2, p. 73)."
>
> -In Action for Excellence skills considered essential to education were listed. Included in these were competencies basic, also, to consumer education--reasoning and economics, both personal and an understanding of the basic economic system (3).
>
> -In High School: A Report on Secondary Education in America Boyer proposed four goals for schools
>
> 1) Thinking critically and communicating effectively.
> 2) Examining heritage and the world as it exists today.
> 3) Preparing for work and further education.
> 4) Fulfilling social and civic obligations (1).

Consumer education continues to be a priority in secondary school curricula. Home economics classes often provide students with the practical applications of consumer education for the present and the future. Access to current resources and ideas is vital for effective teaching in this area. Teachers often use curriculum guides for acquiring such information. The purpose of this round table was to discuss selected curriculum guides adopted by different states and used in consumer education of secondary home economics students.

Prior to the roundtable discussion, educational personnel in all states and the District of Columbia were contacted. Eighteen states had curriculum guides they considered appropriate resources for secondary home economics teachers. A review revealed several different types of guides. The following types were identified on the basis of the purposes designated in introductions to the curriculum guides:

(1) State plan for excellence-to provide tangible assistance in complying with legislation.
(2) Resource manual-to provide assistance in planning and implementing programs.
(3) Personal finance manual-to provide assistance in teaching financial planning.
(4) Competency based approach-to provide materials used in meeting identified competencies.
(5) Complete teaching manual-to provide an inclusive set of course content and materials.

Each type of curriculum guide was designed to assist educators in particular situations; however, materials and resources compiled can be modified for use in numerous situations.

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COMPUTERS AND CONSUMER EDUCATION

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PURPOSE

The purpose of this roundtable discussion was to take stock of the contributions that computers have made to consumer education and to consider what would be useful next steps.

CONTRIBUTIONS

Gains in productivity (after the "break in period") can be found in using computers to help manage tools like bibliographies, inventories of materials, mailing lists and budgets. One example of help with our work was CEBIB, a computerized bibliography developed at Guelph with funds from the Ontario Ministry of Consumer and Commercial Relations. Another was used by counselors who must calculate the cost of a loan, or compare several budget options. Computer produced charts, tables, etc. improve the clarity, timeliness and appeal of presentations and reports. Finally, computers provide a better technology for networking.

Computer assisted instruction (CAI) can fit consumer education to the pace and time preferred by a learner, and perhaps increase interest in undertaking a learning project. The major categories of CAI available are the following:

1. Simulations in which learners are given vicarious experience such as managing a budget or running a store,
2. Tutorials on lifeskills, reading skills, math skills or any area that has specific content to be learned,
3. Guided use of consumer skills with the tedium removed by a computer, e.g., money management. The tasks might be from a case, written problems or from a computer managed plan.

Some questions are heard from depersonalizing teacher-learner relations by substituting a machine, but there is evidence that computers deal with the routine of learning thus freeing the teacher to help those needing it or for enriching the learning project. There also seems to be reports that student to student interaction increases in computer environments.

The expansion of micro computer facilities in libraries and community centers will undoubtedly encourage the development of more software for CAI.

THE OTHER SIDE

For most of the population who learned how to learn before computers came along, computers are unknowns or worst. It is hard enough to motivate people to change without asking them to make peace with a new technology first. Indeed, for the near term, the use of computers for any application is going to depend on very friendly support for both educators and learners.

CAI is useful in situations that are specific (e.g. the formula for computing unit price or the number of hours in the cooling off period) or in situations that need computational speed and accuracy (e.g. budgeting, or comparing several insurance plans). But CAI can be simply expensive "flash cards". Computers are good only if the programs have properly defined the relationships affecting the outcomes of a particular input. However, in many areas of consumer behavior we do not know enough to be confident about some relationships.

Other concerns expressed include the lack of documentation that helps teachers position the program in a learning project as well as getting through the program smoothly, and the need for experience on which to base the next generation of programs.

NEXT STEPS

Steps for constructive incorporation of computers into consumer education should include research into the areas of consumer behavior that are to be modeled, the encouragement of computer techniques for managing the work of consumer educators -- particularly the development of networks for the exchange of text, data, and bulletinboard type information thereby encouraging collaboration between individuals who are lone specialists in their schools or agencies. Although CEBIB is meant to be a personal bibliography, it begs the question of a need for a central data base. To encourage and improve the quality of research, it was suggested that a disk with standard research instruments and analysis programs would be welcomed. As books and materials are reviewed, publishers should be asked for computer support in the forms of data bases, questions and tutorials.

There [illegible] interest in an ACCI computer committee to encourage those who are new in using computers, facilitate the development of systems noted and to encourage higher quality in software.

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COVER LETTER FROM KAREN P. GOEBEL, PRESIDENT OF ACCI

Re: The Treatment of the concept of consumers and consumerism
in The Bishops' Pastoral Letter

The American Council on Consumer Interests is a professional association established in 1952 to further consumer information, education and research. Its members are largely academic economists, home economists and educators from various disciplines at the college and university levels. Consumer affairs professionals from business and government and students are also active members. ACCI publishes an informative newsletter and a professional journal, The Journal of Consumer Affairs.

In line with nonpartisan policy of ACCI, it is not the purpose or function of the organization to take any position on or to endorse the Pastoral letter. Furthermore, ACCI offers no critique of any parts of the Pastoral other than those dealing with "consumers", the "consumer movement" or "consumerism".

However, in as much as ACCI is a professional association of experts in the fields of consumer economics and education, the board of directors submits below the critique and suggestions for future drafts of the Pastoral.

SUGGESTED CORRECTIONS IN THE FIRST DRAFT OF THE BISHOPS' PASTORAL ON THE U.S. ECONOMY

(1) The use of the word "consumerist" in paragraph 142 is misguided. The sentence reading "a consumerist mentality that encourages immediate gratification," is a total and gross error in the context of American and English use of the word consumerist. A consumerist is one who is fighting for the rights of the consumer and not one engaged in excessive consumption. If this meaning is allowed to pervade the Pastoral, it will be a distinct black eye for the understanding of the whole movement and the meaning of consumerism in the United States and the world. Possible replacements for the word "consumerist" in the document might be "materialist", "selfish", "avaricious".

(2) A serious deficiency in the document is its failure to acknowledge the existence of the consumer movement and consumerism as potent forces in the functioning of the economic system--a force that can be interpreted as the direct result of the application of Judeo-Christian principles of just prices and fair markets. A constant refrain of this Pastoral is a need for an advocate with a special concern for the powerless. This is a precise and accurate description of what the consumer movement has attempted to do, and has succeeded in doing to a great extent, over the last twenty years.

(3) In Section VI titled "The New American Experiment--Collaborating to Shape the Economy," there is a serious deficiency in not recognizing the role of organized consumers, consumer spokespersons, and consumer groups in having a share in the cooperation and collaboration called for by this section. It is a serious omission not to even acknowledge the existence of a well-developed movement for, and practice of, consumer participation both in government and business. In number 88 the Pastoral calls for "a struggle to develop institutions that support active participation for all." This is part of what the consumer movement has demanded of government and business, namely, active participation in the decision making processes for those who are the consuming side of the economic marketplace.

(4) Section 138 says that consumers play an important role in the pursuit of economic justice by stimulating production. In turn production increases generate employment. This is a deficient understanding of the role of the consumers. In line with the objective of the Pastoral to encourage development in economic thinking toward more socially responsible perspectives, the statement should be changed to identify the role of consumers as active participants in determining socially responsible production and consumption and in discouraging the production of goods and services detrimental to health and dignity.

(5) Pursuing this theme, paragraph number 139 properly belongs in previous sections dealing with the limited nature of private property and the responsibilities of all persons and economic institutions, not consumers alone.

(6) Paragraph 140 talks about methods of communication that manipulate appetites for increased consumption by generating false needs. The consumer movement is in sympathy with the concept; it has been one of the goals of the consumer movement to attack such attempts to manipulate consumption habits. Therefore, that whole paragraph should be subsumed under the obligations of producers rather than the obligations of consumers.

(7) This whole section 5 fails to understand or mention the proper role of consumers in the economic picture. It does not show any awareness of the last twenty or thirty years' development of consumer participation, or the consumer movement as the defender of the economic rights on the buying side of the market. It makes no acknowledgement of the fact that consumerism and the consumer movement itself have been fighting for all the participatory rights that the rest of the Pastoral rightly stresses as necessary.

(8) Section 5 should contain a statement of the seven broadly acknowledged consumer rights.

1. The right to safety
2. The right to choose
3. The right to be heard
4. The right to be informed
5. The right to redress
6. The right to consumer education
7. The right to a healthy environment

Section 5 should also acknowledge the consumer guidelines which are now before the United Nations.

(9) Realization of these rights would improve the efficiency of the economic system and reduce the waste of resources in line with stewardship responsibilities. Such realization calls for informed, educated consumers, exercising their rights and responsibilities toward the end of maximum development of their human potential through prudent use of goods and services.

(10) Finally, the wording under number 5 "Consumers" in the Introductory Summary should be added to number 2 after the sentence "no one is justified in keeping for his/her exclusive use what he/she does not need when others lack necessities." It is inadequate and inappropriate as a definition of a charge exclusively to consumers. A proper definition of the role of the consumer should be inserted here.

BACKGROUND

The official documents printed above represent the final product of the Roundtable on the Bishops' Pastoral organized at the ACCI convention by Fr. Robert J. McEwen, S.J., of Boston College. The ACCI Board of Directors considered this matter at some length in their meeting before the convention and authorized the President to appoint a committee to draft appropriate statements and letters. President Goebel appointed Fr. McEwen, Stewart Lee, Gordon Bivens, Ed Metzen, and Jean Kinsey. They met at the Roundtable, assisted by several other participants, and worked until a draft satisfactory to all concerned was produced. This then was presented to the ACCI business meeting and later to the Board of Directors and President Goebel was authorized to forward the statement to the drafting committee of the Bishops.

All of this was occasioned by the issuance in November 1984 of a first draft of an official critique of the U.S. economic system which the U.S. Bishops propose to release. Public debate and criticism of the draft was explicitly invited and encouraged. Inasmuch as the rights and responsibilities and function of the consumer were explicitly treated--and treated in a very questionable and superficial fashion--there was widespread agreement that ACCI had an obligation to speak out in order to set the record straight. It was repeatedly emphasized that this was in no way a religious issue--that ACCI should feel obligated to defend the proper understanding of consumer education, consumerism and the consumer movement whenever these issues were publicly misinterpreted. Silence in these matters could be construed either as indifference or as acquiescence--and neither of these results was thought desirable.

MEDIA AND THE CONSUMER: PAST, PRESENT, AND FUTURE

Francis Pollock[1]

The chance to come out here and talk with you today gave me the opportunity to go back through about five years of what, for me, was one of the best times of my life--the opportunity to edit a newspaper or magazine that was right where a journalist likes to be--where things were happening. The period of which I'm going to speak is the years from about 1965 to 1975. Media and Consumer, the magazine which I edited, was in existence from about 1970 to about 1973 or 1974. So as I was preparing today I said to myself, "I've got to find some of the truly great stories from the past and share them with you in case you don't recall them." The one that kept coming back to me was the Fred French story.

If you go today to New York City, to Fifth Avenue at 43rd Street, there's a small skyscraper called the Fred R. French Building. It was one of the first skyscrapers and it was constructed around 1925 at the beginning of the skyscraper era. At the same time that this building was going up, New Yorker magazine was starting to feel its oats and get established. They felt that it would be appropriate to start a new form of criticism, moving outwards from theatre, book and music criticism, and the other traditional areas of criticism, into architectural criticism. So these two things were happening; Fred French was building this monument to himself, and the New Yorker was deciding where to launch its foray into architectural criticism. They hired someone who was very feisty, a very outspoken architect, and they turned him loose. He turned in a review and the magazine published it, in which he said that the Fred R. French Building was an abomination; that it probably ranked as the ugliest bulding ever constructed in New York City. Now Fred French who has been spending millions on this building, on this monument, didn't take too kindly to that and he instructed his lawyers to break the back of this magazine, New Yorker, and to take them for everything they were worth. "Where did they get off criticizing a man's monument to himself?" "What is this architectural criticism?" They had some worried moments at the New Yorker, but the architect said not to worry. He said, "I'll take care of it." Sure enough, just as the case was about to go to trial, the architect showed up in the New Yorker offices with a sheaf of affidavits from his buddies at architectural school, all who had become architects. Every single one of them said the same thing, that the Fred R. French Building was an abomination. One said that it was so bad that he could no longer walk on Fifth Avenue because of Fred R. French. In fact, the last time he had done so he became so nauseated by this building that he almost had an accident.

That's an important story for me because it wasn't really until about the 1960's that this critical dimension in journalism started to emerge even further, and it came hand in glove with the consumer movement.

Evidence of the emergence of consumer criticism came in a program that some of you here probably saw. I believe the date was 1966 or 67 and the program was the first installment of the consumer segment on the Great American Dream Machine. Marshall Efrom came out dressed in a chef suit with a big hat, and he had all these vats of ingredients on the table. Every single one of them had a chemical name. He took these and he threw them in a big cauldron and he announced what the ingredients were as he was putting them in. He finished up, held up this pot and he said, "there we have the raw materials." Then he reached under the table and pulled out Morton's lemon cream pie. "No lemon, no cream, and we're not even sure it's a pie." At that time Morton's was probably the biggest seller in the supermarkets and it was owned then by ITT. You can imagine what ITT's reaction was; it was very similar to Fred R. French's reaction.

Those two stores are forerunners of some of the best things that happened in the late 60's and early 70's within the journalism profession. We not only finally faced up to our responsibilities vis-a-vis the consumer such as informing the consumer, educating the consumer, investigating and exposing consumer issues; but we started to critize. And we did it very well. Restaurant reviews up until about 1965 were just quid pro quos for advertising. The only way a restaurant would be reviewed in a newspaper were if it was advertising in that paper. And of course, the review would only be favorable. However, we started to find out that there were quite a few bad restaurants in this country and the media started to say so.

I was asked to speak about how and when the media began to address consumer issues. I think media attention to consumer issues started around 1900 when the abuses in society were quite bad and spawned the muckraking era. Of course, we had some major reforms then. We moved into the 20's and 30's and saw the birth of Consumers' Union. We saw some very fine reformists' books. But journalistic interest in the consumer issues is very cyclical. We went through that muckracking era, some reforms came, and things quieted down. We had a boomlet again in the late 20's and 30's. We had some things happening in World War II, but not very much. One great newspaper, PM, in New York City, did some very good things. We went into the complacent 50's. And then all of a sudden media interest started to heat up again. We had Silent Spring. At the beginning of the 60's we had Vance Packard's The Hidden

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[1] Former Editor of Media and Consumer

Persuaders. And then, of course, Ralph Nader came on the scene. This new era of consumer journalism started and lasted about 10 years. I will focus on some highlights of this era and then finish up very briefly with some of the trends that I think are going to re-emerge in the near future.

The most important characteristic of the media, in dealing with major social issues like the environment or consumerism, is that they can rise to the occasion but by and large they are very fickle. They're fadish and have an extremely short attention span and, as a result, media attention tends to run in cycles. About 1973 or 74, there were as many as 500 reporters in the United States who could call themselves consumer reporters. I think now there's probably less than 25.

Further, if you don't catch the media's attention and get them onto an issue they're going to lose it very fast. Some of the consumer issues that were brought up in the late 60's and 70's tended not to have enough momentum behind them to really capture either the consumer's interest or the media's interest. Other issues that I think, in retrospect, were a little bit less important did get a good push and got attention from the media.

During this period, many sacred cows were really challenged, as were so many other things in society. As we got into consumer-oriented journalism we did some things very well, and we did some things very badly. We were quixotic at times; we were brutally realistic at other times. We took on some Mickey Mouse targets, as we used to say, at the same time we challenged some of the nation's most powerful institutions. We closed down many places. We did hurt some people; we helped many more, I think. We were sometimes very didactic, and sometimes we were very Jeffersonian about what we were doing.

Here were some of the issues that we took on. I show you them in the context of stories in Media and Consumer, but they reflect what the news media were doing. We acted as a central clearinghouse, reprinting what many of the papers and stations were reporting. For example, we ran a story about flat rates in the repair of cars and televisions, and the issues that they raised. Short weighting as an issue always comes back when a consumer consciousness is high. And we found a judge in Detroit who actually put a short weighter or two in jail.

Another issue we tackled was that of Furniture Confidential. This was an issue that fell into our laps. We found that the furniture retailers were so upset with the performance of the furniture manufacturers that they set up a very secret evaluation system of the manufacturers by name. They were evaluated on their dependability, on quality control, and complaint handling. Every manufacturer of furniture was on the list so, of course, we got our hands on it and reprinted it. I think it was ultimately reprinted in every paper in the United States. It didn't matter that they said this was a confidential survey; we had it and we ran it. It brought about some major reforms among the furniture manufacturers.

One of the more serious issues we attacked was nursing home care. Some of the people who were writing about nursing homes deservedly won Pulitzer Prizes. They should have won three or four for some of the abuses that they exposed at that time. This is my candidate for one of the prime issues that is ready to re-emerge and it should re-emerge every eight to ten years. I remember at the time talking to the New York Times reporter, John Hess, who was writing for them about the horrible situation in New York nursing homes. He said he was struck by the fact that we cover nursing home abuses once every ten years. We give it everything we've got and then about 3 months into the story it moves from the front page; it starts going back in the paper until finally the last story appears on the last page. Then we don't write about nursing homes again for another ten years, even though the issue remains.

Media and Consumer got into some esoteric issues such as passenger planes and their hazardous cargos. We ran a story concerning the transportations of radioactive materials in passenger planes. The situation since then has imporved, I'm told. We dealt with issues like school bus safety. What may have touched this story off, was a Washington Post reporter who went out and actually measured the thickness of the bumpers on the General Motors' school buses from one year to the next. We found out that they went from 1/2" thickness in 1968, down to 3/8" or 1/4" in the following year. His story caused a great deal of grief for General Motors and brought about some changes. In addition, that reporting, filtered through Media and Consumer, had virtually every paper and station in the country doing something about school bus safety, summer camp safety and related issues.

Media and Consumer and other papers and stations and magazines spent a great deal of time on phony foods. We were delighted to go to the trade magazines and pick up the advertisements for these products. For example, "I can not tell a lie. I'm a grape. But if I'm colored red, I can be used in cherry pies."

We were also forever finding that someone was getting very sick from the hamburger sold in the supermarkets across the country. The health people were telling us "you should see what they are doing in those meat grinders in the back room in the name of efficiency. They're running the pork through it, then running the ground beef through it, and so on and so forth. some places they don't even clean them out." So we got on a kick about rotten meat in the supermarkets of America and that brought about some interesting results. Somewhere along the line we even made a T-shirt. It simply said, "super-filthy supermarkets." Consumers were to wear that into their supermarkets as a means of protest. Our ultimate sardonic cover story said, "if your hamburger is well done, chances are the fecal bacteria will be destroyed." We had a great story we picked up from Akron newspapers which we translated into the only magazine cover of the year that had a rat on it. "At long last, everything you wanted to know about the most dirty restaurants in Akron, Ohio." It didn't sell very many copies at the newsstands.

These are examples of the issues that were taken on at the time. There were also some internal issues to take care of as well within the journalism profession. The food editors, probably better than any other specialized group of reporters, argued quite persuasively that the food sections in the Amercian press were really cheating the consumer. They had to go to battle many times with their editors to establish better working conditions. Here they had, they argued, the one section of the paper that was bringing in the most revenue and yet the food editor was required to turn out maybe 50% to 100% more copy than any other reporter on the paper--sometimes even more. And as a result, the food editor couldn't do any of the serious reporting they wanted to do. As a result of their efforts, food editors have really improved the food sections in my judgement. We're seeing some very good things even today in the food sections, and I think we will see better things in the future.

Reporters were also challenging the editors in the newsroom; they were challenging their publishers about practices that were taken for granted, practices whereby advertisers would get favored treatment. Advertisers were sacred cows when I went into journalism in the early 1960's. The big businesses in the community were sacred cows. I remember the Cleveland Plain Dealer running in its Sunday magazine an aerial view of a plant in Cleveland belching smoke. The paper air brushed the smoke before they ran the picture on the front page of the Sunday magazine because it gave a bad image to Cleveland, I remember the Wall Street Journal exposing Boise Cascade. Boise Cascade was trying to show that it really cared about the environment. They had an advertisement on television that showed one of these wonderful country scenes of a river flowing through. They said, "see, Boise Cascade really cares for the environement." A reporter from the Wall Street Journal went out there to this location, found that it was 10 miles upstream from the Boise Cascade plant, and so reported. These were the kind of things that papers started to do at that time. They were all detailed to a large extent in Media and Consumer.

During this period, the news media performed, I'd say, seven functions—each one a little bit differently. They obviously had to inform readers and we had a whole batch of consumer reporters come on whose job was simply to report on consumer issues and to make these known to readers. This kind of reporting had not been done very well before, but by the time we got up to those 500 consumer reporters, these issues were being reported very well. the second function was to educate. The third was a bit new in this period and that was to evaluate. We actually had papers and stations evaluating restaurants, practices of funeral homes, the credit practices of banks, and the actuarial practices of insurance companies. I think the Consumers' Union was influential in making the press begin to understand that it was capable of doing this kind of evaluation. We, of course, had to investigate and expose; we had to criticize and we had to advocate. All of these functions were carried out reasonably well during that period. Since then I think we've lost some ground.

Let's look, for example, at the function to criticize. We devoted one issue of Media and Consumer, probably our most important issue, to the idea that the news media had to start applying this critical function to consumer issues. As a result, a lot of the best thinkers in the consumer movement addressed themselves to the kinds of things they thought the press should be doing. For example, we ran an article on restaurant reviewing coming of age. Perhaps the most important article of all was one by Vince Norris of Penn State, "So why not letters to the editors about advertising?" And I think he might have added "about marketing practices." Well, such letters do appear from time to time but I don't think even now the press welcomes this kind of letter from readers. The advertising is there, people have some opinions about it; they should be able to use the paper to make those opinions known.

Why did consumer reporting lose its momentum around 1975? I think some reasons are that it was cyclical as are most other things, and so it was inevitable that it would run out of gas. There were reforms taking place. The reporters and the editors were getting tired. They were looking for new issues. Watergate was making political reporting alot more fun for reporters than consumer and environmental reporting. But, during its heyday, consumer reporting did take on the sacred cows, challenged them, and brought about some fundamental reforms in journalism. I think it's kept alove today without the vigor I saw during the period that I have been talking about--but it's there. It's just been institutionalized to some degree. We may not have the 500 consumer reporters, but I think we have a very good sense of consumer consciousness on the part of the major editors in this country. And I think most of them are looking for the consumer element in the stories that their reporters produce.

Consumer reporting is in "60 Minutes," in "People's Court," in the Wall Street Journal, and any number of other forms. There are issues, however, that may bring the media back into consumer reporting in a big way. One is institutional neglect in society, the abuses of the consumer in the name of efficiency. Just ask anyone who uses the telephone how that service has deteriorated since the AT&T breakup. The neglect and the treatment of innocent patients by the hospitals and the medical professions, is another. There's a whole range of issues relative to institutional neglect or abuses of the consumer in the name of efficiency wich may get the media cranked up again. There'll be the issues of government performance and non-performance; such occasional stories on social security, medicare, the administration of pensions, regulatory responsibilities, administration of the government safety role. We learned ten years ago that all of the bridges in the United States were ready to deteriorate. And we have seen it start to happen. That's going to be a continuing story, and I hope the news media really treat it as the consumer story that it is. We'll have stories about business performance and non-performance, and I think we're going to see alot more food stories. And I think the food editors are going to take those food sections up yet another level. They'll be telling us a lot more about nutrition issues especially since the nutritionists who are dealing with cancer have been coming out with so many interesting things in the past four or five years. I think they're going to look more closely at pesticide residues in our fresh fruits and vegetables, as well as canned and frozen ones. I think in fact that we're going to see a thrust toward pure foods every bit as vigorous as we did around 1900 with the muckrakers.

In summary, what this reformists' thrust did to the news media during the period from 1965 to 1975 is that it helped to bring about major reforms in the marketplace. The media, of course, were not alone. Some of you here in this very room were bringing about those reforms because of your research and because of your training of students who themselves would go out and either become academics, or lawyers, or scientists, or journalists, acting in the public interest. But the news media's involvement helped to bring about these reforms and at a level of what was achieved in the muckraking era. The media also vastly increased consumer awareness and preparedness. And lastly, the media brought about, once and for all, an acceptance that subjects that were once unthinkable to us were no longer so and fundamental reforms in the news media came about that I think are lasting. I don't know when the next great thrust of consumerism will come, but I think it may be within the next 10 years or so.

THE MOST IMPORTANT --AND NEGLECTED -- CONSUMER CHOICES

Greg J. Duncan, University of Michigan[1]

ABSTRACT

Family living arrangements have enormous effects on the economic status of the individuals involved. This paper argues that we should regard many of these arrangements as the result of endogenous choices, should learn more about how these choices are made, and should consider how a set of actual and potential policies (such as welfare) may affect them.

INTRODUCTION

Standards of living are determined not only by the choices consumers make with the resources they have at their disposal, but by their resource levels themselves. Increasingly, the distribution of these resources is viewed less as exogenous to the individual and more as the result of a series of lifelong choices made by individuals and, during childhood, their parents. The most important decisions affecting resource levels are now thought to include amounts of education, on-the-job training, health and other human capital investments; market work, home production and leisure; and current consumption versus future consumption and bequests. To be sure, the opportunities for attaining a high living standard are not equal for all, nor can the role of luck or institutional constraints such as discrimination be disregarded. But placing some of the components of family income into the economists' choice-theoretic framework has proved exceedingly fruitful, and we now understand a great deal more about labor supply and human capital accumulation and consequently about the distribution of income than we did even twenty-five years ago.

I would like to propose a new candidate for this list of important consumer choices. As I will show, it is much more powerful than labor supply in accounting for short-run changes in the living standards of the American population, and responsible for a substantial portion of the poverty in this country. I will assess whether current government policies are having profound and unintended effects on these choices. This assessment is hampered by a lack of theory-based empirical work, and considerably more research resources should be devoted to understanding these choices. I will also argue that the "markets" for these choices are not operating equitably for all who participate in them and that we should consider a set of proposals for reform.

Anyone who has read the abstract of this talk will have discovered that the choices I am talking about are key decisions about living arrangements -- marriage, divorce, living together, and leaving or returning to the parental nest. These topics are certainly not without extensive literatures, and I am not the first to point out their importance. But only with the advent of information from several recent large-scale data collection projects has it become clear just how significant they are. Moreover, these projects have at last provided the kind and quality of information needed to understand how such decisions are made and whether government programs such as those that make up the welfare system are responsible for recent trends. Most of the data I will present come from the Panel Study of Income Dynamics (PSID), an eighteen-year longitudinal study that has interviewed a representative sample of American families each year since 1968.

THE IMPORTANCE OF FAMILY COMPOSITION CHANGE

Let us take the decade of the 1970s as our reference period and examine the trends that occurred during that time in the economic status of the American population. Per capita family income will serve as the measure of economic status, since the family is the basic unit over which economic resources are shared in our society. Dividing by family size adjusts family income for the number of mouths that must be fed.[2]

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[2] In fact, the family size adjustment is accomplished with an Orshansky-type poverty standard for a family of the given size. This is superior to a per capita adjustment since it adjusts for not only the number but also the age and sex of family members and incorporates adjustments for economies of scale.

There is astonishing variation in the amount of change in economic status experienced by the population over the decade. Rather than just puttering along within a few percentage points of the rate of inflation, a surprisingly large fraction experienced either dramatic increases or severe drops in their economic well-being. Three-fifths of the population moved at least one quintile in the income distribution between 1971 and 1978; one-fifth jumped two or more quintiles [6]. This economic mobility occurs to people at both the top and bottom of the income distribution, is affected only slightly by macroeconomic events -- such as the oil embargo and food price inflation of the early 1970s or the major recession at mid-decade -- and appears to be genuine, not the result of faulty measurement.

What causes such economic turbulence? Labor market events such as the loss of a job, movements of married women into and out of the labor force or from part- to full-time jobs provide some explanation. But far more important for much of the population -- especially children and women -- are fundamental changes in the composition of their families, in particular divorce, remarriage and the departure of children from their parental homes. The following are illustrations of how family composition affects economic status:

- Even including alimony and child support payments, the average family income of women and children involved in divorce during the 1970s fell from about $26,000 to $15,000 in the year following the divorce. One-quarter of these women and children had a per capita income living standard of less than half that enjoyed prior to divorce [5].

- In sharp contrast, the living standards of men involved in divorce changed very little, even after alimony and child support payments had been subtracted from their incomes. These men were only one-third as likely to fall into poverty following divorce as were their ex-wives and children [5].

- The benefits of marriage and remarriage for the economic status of women and children were as large as the detrimental effects of divorce. Poverty rates among black children who gained a step-parent fell by more than 30 percentage points [7].

- The departure of children from their parental homes often produced a sharp drop in their family income level, along with a somewhat compensating drop in family size. More than one-third of the individuals who fell below the poverty line at least once during the period from the late 1960s to the early 1980s were children leaving their parental homes [4].

- All in all, family composition changes accounted for twenty percent of the variance in the average change in the family economic status of children during the 1970s. In contrast, changes in the labor supply of their parents accounted for less than five percent of the variance [3].

The drastic consequences of divorce are surprising in light of the various mechanisms that are intended to cushion the blow. The purpose of court-awarded child support is to transfer enough of the ex-husband's income to prevent financial hardship on the part of the ex-wife and her children. If this fails, then the public welfare system can step in. But in reality there is a huge gap between court awards and actual child support payments, welfare is not generous enough to lift most families who fall below the poverty line out of poverty, and while the overwhelming majority of women work or work more in response to the divorce, their earned income is only a small fraction of that of their ex-husbands.

Equally important, however, is the fact that the detrimental family composition changes are often matched by offsetting beneficial ones. Half of white women and one-third of black women who divorce remarry within five years. The economic benefits of remarriage to the women and children involved are as dramatic as the drops in economic status associated with divorce. The expected economic value of divorce -- calculated by averaging the living standards of women and children who remain divorced with the living standards of those who remarry -- is positive within two years following the divorce [5]. But this is true only on average; it is of little consolation to the many women and children who are much worse off after a divorce to know they have counterparts somewhere who are considerably better off than before.

DO PEOPLE REALLY *CHOOSE* THEIR LIVING ARRANGEMENTS?

It is one thing to demonstrate that family composition changes have dramatic effects on living standards and quite another to argue the utility of regarding them as voluntary consumer choices or to speak usefully of marriage "markets". It is clearly absurd to argue that young children "choose" their living arrangements. And perhaps even for adults these changes are so dictated by the heart rather than the mind that it is a waste of time to model them as economic decisions.

I am convinced that these choices have definite economic underpinnings, and I would argue that most of you would agree as well. How many of us fail to find at least some appeal in the widespread view that recent dramatic changes in rates of divorce and female-headship in the United States can be traced to the Great Society liberalization of the welfare system (e.g., [10])? Anyone who believes that the generosity of programs such as Aid to Families with Dependent Children might encourage divorce, discourage marriage or remarriage, or encourage births is using an implicit model of family composition choices that rests, at least in part, on economic motives. One does not have to believe that such motives are all-important to recognize that they play a useful role in understanding the incidence or timing of family composition changes.

As is often the case, economic theories about family composition choices are more fully developed than is our knowledge based on empirical studies of the relative importance of factors such as the welfare system [1]. The Seattle-Denver income maintenance experiments provide some experimental evidence to indicate that a change from our current welfare system to a purer form of a negative income tax would probably result in a substantial increase in the divorce and separation rate among low income households. On the other hand, evidence based on the huge interstate variations in payments under the current welfare system indicates that changes in the generosity of payments under the current system is likely to have little or no effect on rates of divorce, remarriage or births. The most comprehensive study of this issue concluded that "welfare simply does not appear to be the underlying cause of the dramatic changes in family structure of the past few decades" [8, p.6].[3]

A major problem with most of the empirical work on family composition decisions is that it has failed to model adequately the nature of the choices confronting the key actors. Most of it is decidedly ad hoc and relates the family composition states to a set of demographic variables, and in some cases to a set of measures of the welfare parameters in the state of residence. Danziger et al. [2] are a notable exception in that they attempt to specify the utility levels associated with the states of female headship and marriage and to estimate a model based on utility-driven choices. A weakness of their work and most other empirical studies is a failure to account for the likely selection bias in using information on married women to infer the situation of currently unmarried women should they marry or remarry. Statistical techniques for handling this selection bias in the context of choice models are now widely available, although there are limits on the extent to which they can torture existing data sources into revealing social truth. We also need better data on the alternatives people faced. To understand choices it is useful to know what was *not* chosen.

Proper modelling of these decisions may well show labor market conditions to be more important than welfare program benefits in accounting for some of the recent trends toward family instability and female-headed families. The rates of marriage and remarriage are much lower among black than white women, but is this the result of the welfare alternative or of the dismal labor market prospects facing unmarried black men? Only models that properly account for the full set of choices facing these women can answer such a question.

IMPLICATIONS FOR CONSUMER POLICY

Given the major role of family composition choices in the economic well-being of the population and the possible responsiveness of these choices to economic measures, it is important to consider implications for public policy.

It is obvious that policies designed for other purposes should not have *unintended* detrimental effects on family composition. The so-called "marriage tax" contained in the Federal Income Tax was the most celebrated -- while perhaps least significant -- example of this. More serious is the previously mentioned possibility that the welfare system may cause families to break up or discourage marriage entirely. Although the weight of current evidence does not seem to point in this direction, our knowledge of this should be supplemented with more extensive studies.

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[3] Interestingly the Ellwood and Bane study found that the decision of unmarried mothers to live away from their parental home *was* quite sensitive to the state-wide level of AFDC benefits.

A more general example of these possible unintended effects involves any program that bases its benefits on a scale of family needs that adjusts for the economies of scale thought to be present in large families. In effect, such programs attempt to capture these economies of scale for themselves in the form of lower payments. But this saves money at the cost of removing some of the incentive for individuals to combine into household units and reap such benefits themselves.

Aside from eliminating the unintended consequences of existing programs for our families, we might also consider taking positive steps to encourage the provision of financial or in-kind assistance to extended family members or other individuals. For example, providing Medicare payments for nursing home care but not for care in the homes of sons or daughters may needlessly encourage elderly parents to move into more expensive nursing homes when they can no longer live independently. And now that the range of tax rates is about to be reduced substantially, should we consider a proposal that would encourage "charitable contributions" among extended family members by taxing the income of the recipient but not the contribution of the donor?

The enormous impact of divorce on the economic status of the women and children involved raises a number of unsettling questions. Current arrangements for redistributing some of the ex-husband's labor income are woefully inadequate since court alimony and child support awards are either too small or evaded entirely. Should the United States adopt the system used in a number of European countries in which the government guarantees the payment of some portion of the award, regardless of the behavior of the ex-husband [9]? Or should we consider two more radical proposals of James Morgan? The first would encourage couples contemplating children to purchase not only the proper amount of life insurance on the father but to legally bind him to pay that sum to the mother in the event of divorce. The second would tax the lifetime earnings of each parent according to the number of children fathered or mothered and use the revenues to fund child care either within or outside the home.

A more general concern involves the consequences when women in our society, but not men, are so vulnerable to family composition changes. Do the dismal economic prospects many currently married women would face in the event of divorce alter the balance of power between husband and wife within marriage? Is the incidence of spouse or child abuse related to the distribution of economic power? And should we regard the high divorce and separation rates among low income couples in the Seattle-Denver income maintenance experiments as an unambiguously bad outcome of an income maintenance system that provides for a higher living standard for divorced women?

A prime cause of the differential economic status of divorced men and women are the inexplicably low earnings of women relative to men with similar attachment to the labor force and the assumption that they are responsible for the children. Studies that have tracked women following divorce find that the almost universal reaction is to enter the labor force -- if not already there -- or work more hours if already employed [5]. But the pay rates earned by women are so low that even full-time employment is often insufficient to lift a family above the poverty line. Women workers appear to be grossly underutilized relative to the skills they bring to the labor market, and policies to remedy this will have substantial consequences for the family composition changes we have been discussing [3].

A final implication concerns us all as consumer educators. Like it or not, family composition decisions are some of the most important consumer choices faced by individuals, in particular adult women and, indirectly, young children. Until there is a radical change in the inferior labor market and family economic position of women, we must make every effort to increase public awareness of this complex problem and to encourage the search for innovative solutions.

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KNOWLEDGE AND CONCERNS REGARDING ATM USE

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ABSTRACT

The objectives of this study were to investigate consumer knowledge regarding protective federal ATM legislation and consumer concerns regarding ATM use. Data were from a randomly-drawn sample of 2,466 ATM users and nonusers. ATM use and concerns about ATM use as well as age, income, sex, and three financial management variables were significant predictors of knowledge regarding ATM legislation. Significant predictors of ATM-related concerns included sex, education, income, use of ATMs, knowledge about ATM legislation, travel, and two financial management variables.

In today's fluid environment, consumers are faced with many changes which impact on how they manage their personal finances. Among the technological changes which have been introduced in the market, teller-related functions in banks have been one of the first widely-adopted automated consumer services. Automated teller machines (ATMs), which were initially on or near the premises of financial institutions, have now multiplied and spread to other locations--stores, shopping malls, airports, etc. These machines allow consumers to perform many financial transactions without interfacing with human personnel.

Early research findings indicate that consumer acceptance of ATMs was slow during the 1970's [1, 2, 3, 8]. Arthur D. Little, under contract from the National Science Foundation, did in-depth interviews with panels of females from three income groups [6]. Although all three groups saw ATMs as advantageous in terms of their convenience and as a source of emergency funds, they expressed concern about the impersonal nature of the machines and the possibility for human and machine errors. Mears, McCarty and Osborn [7] conducted interviews with 300 randomly-chosen respondents in 1976. They also found that common reasons for lack of acceptance included impersonal operations and personal safety concerns as well as the potential for machine and individual errors.

RESEARCH DESIGN AND HYPOTHESES

In view of the concerns expressed regarding ATM use in earlier studies, the present research was undertaken to investigate these concerns now that ATMs have been more widely accepted. In addition, the researchers were interested in the level of consumer knowledge regarding protective federal ATM legislation. The specific objectives were to investigate knowledge and concerns and to identify demographic and financial management characteristics of consumers who exhibited various degrees of knowledge and concern regarding ATM use.

Based on previously published research as well as an unpublished, pilot study by Greninger, Hampton and Rodriguez [4], the following hypotheses were formulated. It was expected that consumers who were more knowledgeable concerning federal ATM legislation would be better educated, higher income, and more likely to be male than those who were less knowledgeable. In addition, it was expected that the more knowledgeable consumers would be more likely to be regular readers of magazines and newspapers, to spend more time on financial management tasks, and to perform these tasks in a maintenance rather than a crisis mode.

It was hypthosized that older, female, lower income and less educated consumers would express greater concerns about ATM use. These more concerned consumers would be less apt to use ATMs, would spend more time on financial management tasks, and would perform these tasks in a regular/maintenance mode.

METHODOLOGY

Sample

Data for this study were collected during Fall, 1982 from randomly-selected respondents in Austin, Texas. Telephone interviews were conducted using a pretested survey instrument that included questions about demographic characteristics, financial management practices, ATM use and concerns, and knowledge regarding federal protective legislation pertaining to ATMs. At least three attempts were made at various times of the day to reach residents at the randomly-selected telephone numbers. If the person was not reached or refused to participate, a substitute number which had been randomly drawn was used. The overall participation rate was 54 percent, with 35 percent not being reached and 11 percent refusing to participate. Conducting the interviews during the Fall from a telephone directory that was issued the previous December accounted for some of the difficulty encountered in reaching respondents. The total sample included 2,466 respondents who were 18 years of age or older.

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Data Analysis

Multiple regression analysis was used to test the hypotheses regarding both consumer knowledge and concerns. Standardized beta coefficients were used to indicate the relative influence of the independent variables on the dependent variable, controlling for the other independent variables in the regression model. The adjusted coefficient of multiple determination (R^{*2}) was used to measure the proportion of total variation in the dependent variable explained by all of the independent variables.

The dependent variable measuring knowledge of federal ATM legislation was based on respondents' answers to the following hypothetical questions:

1. Jack had $700 in his account when his automated teller machine card was stolen. If the thief withdraws all $700 from the account, how much of the $700 can Jack lose?
2. Does the amount of money Jack stands to lose change depending on how long it takes him to report the stolen card?

Respondents were classified as incorrect in their knowledge and assigned a code of 0 if they answered "no" to the second question. Respondents were also classified as incorrect if they answered "yes" to the second question and gave a value other than $50, $500 or $700 in response to the first question or if they indicated they didn't know the answer to either of the two questions. Respondents were classified as correct if they answered "yes" to the second question and gave either $50, $500 or $700 in response to the first question; they were assigned a code of 1 [5].

The dependent variable measuring concerns was created by summing the responses given to four questions regarding level of concern about 1) errors made when using ATMs, 2) lost or stolen ATM cards, 3) personal safety when using ATMs, and 4) the impersonal nature of using ATMs. Responses to these questions were on a three-point scale with 0 = not at all concerned, 1 = moderately concerned, and 2 = very concerned. Thus, the highest possible score on the scale would be 8 while the lowest would be 0. The concern scale's alpha, which measures the internal consistency of scale items, was 0.67.

A dummy variable technique was used for the independent variable "method of performing financial management tasks." Respondents chose one of the following responses in answer to a question about how they generally performed their financial management tasks: 1) regularly, 2) depends on the situation, or 3) just before needed. Because of the categorical nature of these responses, dummy variables were utilized with the control category being "depends on the situation."

RESULTS

Sample Characteristics

The mean age of the respondents in this sample was 30 years, and the sample was evenly split between males and females and between marrieds and singles. Over 70 percent of the sample had completed more than a high school degree with 36 percent of the sample having received a college degree. The median family gross income was reported to be approximately $22,000. In comparison with U.S. Census statistics for the general population [9], the respondents in this sample were generally younger, better educated, and more likely to be single.

Forty-three percent of the sample reported they were using ATMs. While the median number of months used was 18, the time of use ranged from less than one month to seven years. Withdrawals were the most frequent financial transaction performed using ATMs (mean = 1.7 per week) followed by checking account balances, making deposits, and transferring account balances (means = 1.0, 0.5, and 0.08 per week, respectively). The median amount withdrawn per week was $40.

Knowledge of Federal ATM Legislation

Thirty-five percent of the respondents in this sample answered both questions used to measure knowledge of federal protective ATM legislation correctly. It is interesting, however, to look at the responses to each question independently. Fifty percent of the sample felt that a consumer would lose all the money fraudulently withdrawn from his account while 14 percent thought the loss was limited to $50 and another 3 percent thought it was limited to $500. Therefore, a total of 67 percent answered one of the potentially correct answers. Regarding the time period taken to report a stolen ATM card, 54 percent of the respondents correctly answered that time does make a difference in the amount of money the consumer will lose.

The demographic and financial management variables included in the multiple regression analysis explained seven percent of the total variance in the knowledge of federal protective ATM legislation. The relative importance of the independent variables is reported in Table 1. Respondents who answered the hypothetical case problem correctly were more apt to be younger, higher income, and male. They were more likely to be using ATMs and to be concerned about using ATMs. In addition, the more knowledgeable respondents spent more time performing financial management tasks, performed these tasks in a regular/maintenance mode rather than in a less structured mode, and read magazines and newspapers in addition to daily papers.

Concerns About ATM Use

Looking individually at the four areas of concerns which were measured, respondents reported they were most concerned about lost and stolen ATM cards (mean = 0.9). This concern was followed by errors made when using ATMs, personal safety when

TABLE 1. Standarized Regression Coefficients of Selected Independent Variables with Knowledge about Federal ATM Legislation.

Independent Variable	beta N = 2235
ATM use	.05 *
Concerns about ATM use	.09 ***
Time spent on financial management	.05 *
Regular/maintenance management style	.06 *
Crisis management style	-.04
Satisfaction with financial management	-.03
Credit card use	-.02
Read daily newspaper	.01
Read magazines and other papers	-.04 *
Frequency of travel	.02
Age	-.18 ***
Sex	-.07 **
Marital status	-.04
Education	.03
Income	.09 ***
Adjusted R^2	.07 ***

* $p < .05$
** $p < .01$
*** $p < .001$

using ATMs, and the impersonal nature of using ATMs (means = 0.8, 0.8, and 0.3, respectively). The mean score for the scale developed by summing the responses to the four independent statements was 2.8, less than moderately concerned.

Multiple regression analysis utilizing the demographic and financial management variables reported in Table 2 produced an adjusted R^2 of only five percent. Sex was the most important predictor of concerns with females being significantly more concerned than males about ATM use. Other significant demographic variables were education and income, both of which were negatively related with the concerns scale. Respondents who were more concerned about ATM use were less likely to be using ATMs and were more likely to be knowledgeable about federal ATM legislation. These respondents also spent more time on financial management tasks, performed these tasks in a regular/maintenance style rather than in a less structured style, and traveled out of the city more frequently than respondents who were less concerned about ATM use.

TABLE 2. Standarized Regression Coefficients of Selected Independent Variables with Concerns about ATM Use.

Independent Variable	beta N = 2235
ATM use	-.10 ***
Correct knowledge about federal ATM legislation	.11 ***
Incorrect knowledge about federal ATM legislation	-.04
Time spent on financial management	.08 ***
Regular/maintenance management style	.06 *
Crisis management style	-.02
Satisfaction with financial management	-.02
Credit card use	-.02
Read daily newspaper	.04
Read magazines and other papers	-.02
Frequency of travel	.06 **
Age	.04
Sex	.13 ***
Marital status	.01
Education	-.05 *
Income	-.09 *
Adjusted R^2	.05 ***

* $p < .05$
** $p < .01$
*** $p < .001$

CONCLUSIONS AND IMPLICATIONS

Of the hypothesized relationships regarding consumer knowledge of protective federal ATM legislation, five were supported, one was partially supported, and one was rejected. Education level was not found to be a significant predictor of knowledge about ATM legislation; therefore, this hypothesis was rejected. Magazine and newspaper readership was only partially supported as a predictor of knowledge. Reading a daily newspaper was not a significant predictor while reading magazines and other-than-daily newspapers was a significant predictor of knowledge.

Only one of the hypotheses regarding consumer concerns about using ATMs was rejected. Age was not found to be significantly related with concerns.

Of perhaps more interest than what was hypothesized are the relationships which were not hypthosized but which were significantly related with the dependent variables. It was found that age, the most important predictor of knowledge, was negatively related with knowledge. Better consumer education is needed for all potential ATM users, but the need appears to be even greater among older consumers. Since this group will not likely be reached through the traditional channels of formal education, the responsibility to increase public awareness about the potential losses when using ATMs may need to be encouraged among financial institutions and the media. However, it is quite possible that financial institutions may not consider dissemination of this information in a form that will be readily noticed and understood by consumers to be in the financial institution's best interest.

There is also a strong relationship between knowledge and concerns. As the potential for loss can be quite large when using ATMs, knowledge of protective legislation in this area is associated with greater rather than lesser levels of concern.

Since the total variance explained by the independent variables in this study is small, further research using a wider variety of variables should be undertaken. In investigating knowledge levels, information about consumer education courses taken, specific magazines and newspapers being read, and information received from financial institutions could be included. Social-psychological variables, particularly attitudes regarding risk aversion and acceptance of change, could be important predictors of concerns about using ATMs.

It would also be useful to continue research in this same mode now that ATMs have been widely available for a longer period of time. Early consumer information about ATMs came primarily from promotional material through financial institutions. Therefore, the information emphasized the positive aspects of ATM use. It has taken time for some of the more negative aspects of ATM use to surface and to be publicized. For example, less than one month after this study was completed, a local woman was robbed and murdered after withdrawing money from an ATM. Public awareness of the risks associated with using ATMs increases with the incidence of events such as this. It is also notable that many of the recently-published financial management textbooks fail to even discuss the pro's and con's of using ATMs. Educators will need to supplement these texts with class discussion and perhaps even a student survey to explore issues involved in ATM use.

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OLDER CONSUMERS IN THE NEW FINANCIAL SERVICES MARKET

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ABSTRACT

Recent deregulation in the financial services market has done much to change opportunities for consumers in meeting savings and credit needs. Yet within the context of this rapidly changing market, older consumers may be less informed and at greater disadvantage than others. Evidence presented in this study of a group of older consumers shows them to be willing to use many of the new savings instruments, though not to be well informed about the changed market and new services. Those over 75 years old, and those with the lowest incomes and education seem to be at most disadvantage in the market.

INTRODUCTION

The last ten years have witnessed an extraordinary growth in the financial services industry. This once highly segmented market has been transformed into a highly competitive market by recent regulatory reforms, not the least of which has been a phasing out of interest rate differentials of various types of savings accounts, and permitting institutions to enter parts of the market from which they were previously excluded. Walden provides a good overview of the changes in the market [15].

The changes have created greater competition among providers of financial services in terms of meeting consumer deposit and credit needs. The result has been a broadening of saving and borrowing options, with consumer interest rates more closely tied to the "market" interest rate. At the same time, reduced cross-subsidization of services has increased many fees.

These changes have occurred at a time when older consumers represent a large and growing share of holders of wealth and assets [3]. And indeed, since 1970 their incomes have risen more than those of others [7]. Several studies show the elderly do not use wealth to fund current consumption as predicted by pure life-cycle models [1, 4, 8, 12]. Certainly, older consumers are concerned about about their economic vulnerability today, after the inflation experience of the early 1970's [11].

Despite the intuitive benefits associated with regulatory reforms, it is not clear that the benefits of deregulation are distributed equally among all participants in the financial service market. While recent changes hold the potential for increasing the investment potential of the older population's current resources, such benefits are predicated on the knowledge and awareness of services in the market, as well as an understanding of the implications of market changes for personal financial management.

While we know something about the composition of assets of the elderly [5], little is known about the older consumer's awareness and practices in the consumer financial market. Specifically, how are they using the market changed by deregulation?

DATA AND METHODOLOGY

This study reports on a survey designed specifically to address concerns about the older consumer in the financial services market. The objectives of the study were to:

(1) Examine the behavior of older consumers in the market;
(2) Ascertain the extent of the elderly's awareness of the different deposit and credit options;
(3) Evaluate factors which affect the elderly's decisions regarding use of financial assets;
(4) Identify any problems of information or access for older consumers.

The study relied on two surveys conducted during the Spring of 1984 in Harford County, Maryland: a survey of households and a survey of local financial institutions. The household survey was a mail survey, sent to over 7,200 households on the county Office on Aging mailing list. This represented about 80 percent of the county's population over 60. The survey response rate was 31.6 percent, for a total of 2,275 household surveys. The survey of market institutions was conducted using personal interview. Seventy-five percent of the 44 institutions contacted participated in the survey. Concurrent phone surveys of the institutions were used to determine actual market interest rates during the period of the household survey.

In comparison to the state, the county's population is slightly younger, although among those 60 and above, the distribution of ages is quite comparable. The county, located just north of Baltimore, has a rural-urban mix of population which has been growing rapidly, especially among the "younger-old" residents.

Most respondents were age 65 to 74, and retired; just over half were married. The average income of approximately $18,156 is comparable to the estimated state average of $20,671 in 1983 for those 60 and over (the 1979 estimated income from the 1980 census adjusted by changes in the CPI).

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STUDY FINDINGS

The following reports on the findings with respect to service usage and particular problems for the older consumer.

Account Usage

Most older consumers do use financial services (Table 1). Nearly 72 percent of respondents had regular checking accounts and 66 percent had regular savings accounts. We observe that the usage declines with age, and the association is significant for regular savings and money market accounts. In this population, over a third of those responding had money market accounts or certificates of deposit, both of which recently entered the consumer service market. This is higher than preliminary national data from the Federal Reserve Board's 1983 Survey of Consumer Finances indicates. It may reflect increasing usage after commercial banks, and savings and loans were permitted to offer them in 1982.

Despite the new accounts, most older consumers remain tied strongly to an institution for the "main" checking and saving account. The average length of both checking and savings accounts was over 20 years. Over half of those over 75 had had a checking account with the same institution for more than 25 years.

TABLE 1. Account Use by Age

Account	Total	Age 55-64	 65-74	 75 and above
	percent	percent	percent	percent
Regular Checking	71.9	74.4	77.4	64.1
Regular Saving*	66.1	83.7	64.2	59.4
Interest-Bearing Checking	28.1	37.2	29.2	23.4
Money Market*	35.3	37.2	41.5	23.4
Certificate of Deposit	34.4	41.9	35.8	29.7
Club Accounts	14.6	14.0	17.0	10.9

The χ^2 test calculated with n = 221, 2 degrees of freedom

*significant at .05 level
**significant at .01 level

The older consumer's use of new accounts and newly available services provides evidence of how well older consumers understand and use the newly available financial options. Notably, nearly a quarter of the respondents had opened money market accounts, and over 20 percent had taken certificates of deposit since 1981 (Table 2). Both types accounts would be appropriate to older consumers with their higher rates of return and, often, insured status. Again, we observed declining use with age.

Other indicators of willingness of use new services included use of direct deposit, deposit by mail, and automatic teller machines. Widespread use of direct deposit (which would include social security checks) indicates some acceptance of newer technology of banking. However, only 15.2 percent use deposit by mail, and less than 11 percent use automatic teller machines (ATM's). The use of ATM's declines

TABLE 2. New Accounts and Service Use by Age

Accounts	Total	Age 55-64	 65-74	 75 and above
	percent	percent	percent	percent
New Accounts				
Regular Checking	7.7	8.6	7.2	7.5
Regular Saving**	8.6	10.8	7.9	7.7
Interest-Bearing Checking*	13.3	15.8	13.6	9.6
Money Market**	24.7	28.0	26.7	16.4
Certificate of Deposit**	21.5	24.9	21.5	17.1
Club Accounts	5.4	6.0	5.2	5.7
Service Use				
Direct Deposit**	54.5	55.0	57.6	46.8
Deposit by Mail	15.2	16.2	14.9	14.6
ATM**	10.8	18.0	11.4	3.7
Non-Mortgage Loan**	17.8	29.3	17.2	4.4
Credit Card**	67.3	79.6	69.4	45.7

$^{*}\chi^2$ significant at .05 level
$^{**}\chi^2$ significant at .01 level

rapidly with age. Pearson correlation tests show the newer service uses were highly correlated.

As expected, older consumers are not likely to borrow. About 17 percent had non-mortgage loans, and this borrowing declined sharply with age. On the other hand, 66.4 percent had credit cards. Again, use by those 75 and older was significantly smaller than others. For the most, the use of credit cards is primarily a matter of convenience--not credit per se.

Reasons for Saving and Borrowing

Several questions were designed to explore different reasons for saving or borrowing. As expected, and shown on Table 3, saving for emergency use is predominant. Mirer has suggested the precautionary motives for saving may have increased since the recent high inflation levels of the 1970's [12]. Saving for emergencies was less important among those with higher incomes and more education. Surprisingly, saving for children (the traditional bequest motive) was ranked as most important by only 1.3 percent. Again, those with higher income ranked this more highly.

When asked to make a similar ranking, the members of the financial institutions also ranked emergencies most often (67.6 percent) as the most important reason to save. However, children (8.8 percent) and money accumulation (14.7 percent) were more often mentioned than by households. Thus both the older consumer and the financial institutions perceive the same savings need for emergencies as most important, yet differ on the perceived importance of bequest and accumulation motives.

When asked about reasons for borrowing, emergencies again ranked as the most important reason for households, as shown on Table 4. Expenses and bills ranked second. Almost five percent of the older households thought there was never a good reason for them to borrow money, with those over 75 years old most likely never to borrow.

Within the service offering in the market, it is important to determine the factors, or characteristics, the older consumer selects when making a decision. These ranked characteristics give evidence on how the older consumer attempts

TABLE 3. Most Important Reasons for Saving

Characteristic	Emergency	Accumulate Money	Medical and Expenses	Future	Retirement	Children
	----------	----------	----------	percent	----------	----------
Age						
55-64	78.7	6.1	1.9	5.4	6.5	1.5
65-74	86.0	3.2	2.3	3.1	4.5	.9
75 plus	86.3	2.4	3.5	1.7	4.3	1.9
$\chi^2 = 31.82^{**}$						
Income less than $7500	92.9	1.5	2.9	1.7	.6	.4
$7500-14999	87.9	2.4	2.2	2.2	4.3	.9
$15000-34999	79.9	4.3	2.4	5.5	6.7	1.3
$35000 & over	68.4	10.8	2.2	3.9	10.8	3.9
$\chi^2 = 122.69^{**}$						
Education						
No H.S. Diploma	91.6	2.1	2.0	1.7	2.3	.3
H.S. Diploma	82.9	4.5	1.4	3.7	6.6	1.0
Some College	78.0	5.0	4.2	5.0	5.5	2.4
College Degree+	72.7	6.1	3.4	5.7	8.7	3.4
$\chi^2 = 84.94^{**}$						
TOTAL	84.0	3.8	2.4	3.4	5.0	1.3

$^{**}\ \chi^2$ significant at .01 level

TABLE 4. Reasons for Borrowing

Characteristic	Emergency	Expenses and Bills	Never Borrow
	----------	percent	----------
Age			
55-64	46.6	48.2	2.2
65-74	56.8	30.0	4.3
75 plus	55.7	18.9	9.4
χ^2	$(15.96)^{**}$	$(104.36)^{**}$	$(30.05)^{**}$
Income less than $7500	64.1	15.9	5.6
$7500-14999	56.5	28.1	5.6
$15000-34999	48.5	44.4	3.8
$35000 & over	40.7	43.5	4.8
χ^2	$(48.40)^{**}$	$(128.38)^{**}$	$(3.11)^{**}$
Education			
No H.S. Diploma	60.7	22.0	4.4
H.S. Diploma	54.4	34.8	5.7
Some College	46.3	41.1	5.0
College Degree+	42.7	46.6	4.3
χ^2	$(38.58)^{**}$	$(80.67)^{**}$	$(1.32)^{**}$
TOTAL	53.7	29.2	4.9

$^{*}\chi^2$ significant at the .05 level
$^{**}\chi^2$ significant at the .01 level

to use the services offered to meet goals of saving or borrowing. Older consumers rank high rates (41.5 percent) and "insurance" (34.1 percent) for accounts as the most important things to consider when opening a savings account; 12.5 percent listed location; 6.1 percent listed low minimum balance or low service fees; and only 2.5 percent listed friendliness of personnel and services offered. As expected, interest rates were more important to younger consumers; location to older consumers. However, the lack of importance on service is perplexing, particularly in a local market characterized by sharp competition over both rates and services. Evidence that older consumers are such long-standing clients suggest that there is strong allegiance to an institution, and perhaps that outweighs any willingness to change based on service characteristics. Alternatively, perhaps, high rates were viewed as the "appropriate" response.

TABLE 5. Agreement with Specified Differences Between Commercial Banks and Savings and Loan Associations

	Agreement with Specified Difference		
Characteristics	Banks are Different from Savings and Loans	Banks pay Lower Interest Rates	Banks Allow You to Write Checks
	percent		
Age			
55-64	79.9	69.8	31.9
65-74	84.0	62.6	37.6
75 plus	87.7	49.8	44.9
χ^2(df = 2)	(6.62)*	(21.53)**	(9.06)*
Income			
less than $7500	89.8	42.5	45.7
$7500-14999	82.8	52.8	44.4
$15000-34999	81.5	73.6	31.5
$35000 & over	83.1	70.6	31.4
χ^2(df = 3)	(7.40)	(68.30)**	(19.74)**
Education			
No H.S. Diploma	84.2	47.9	44.2
H.S. Diploma	85.9	68.6	31.1
Some College	83.4	62.7	38.7
College Degree+	78.3	76.8	33.9
χ^2(df = 3)	(5.55)	(50.27)**	(12.68)**
TOTAL	83.5	62.0	37.5

* χ^2 significant at the .05 level
** χ^2 significant at the .01 level

The view of those in financial institutions was in marked contrast. They thought older consumers were most concerned about reputation, and only to a lesser degree interest rates. These discrepancies suggest the need to better understand (or educate) older consumers concerning their individual needs and choices in the market.

Information

The survey provides some data on the extent of consumer information in the changed market. Nearly 50 percent thought that commercial banks and savings and loans differed, though in fact today there is little difference between them (Table 5). Importantly, over 30 percent were uncertain enough to say "did not know." Among differences cited, belief that banks pay lower interest rates than savings and loans, and that only banks allowed checking were significantly related to age.

As an alternative approach to measuring market information, Thorelli and Thorelli [14] suggest a measure of the "information gap" about rates in the market by calculating the difference between estimated rates and actual rates. The households were asked about rates for specific accounts or loans, in this case, a "regular" savings account, or a $1,000, home improvement loan. The market rate came from the phone survey during the period of the household survey. As can be seen in Table 6, the older consumers over estimated savings rates and underestimated borrowing rates.

Access

There was some evidence in the survey that older consumers, and those with less education and less income experience problems of access to the use

TABLE 6. Information Gap for Savings and Loan Rates

Characteristics	Mean Estimated Rate	Market Rate	Information Gap
	Savings Account		
	percent		
Age			
55-64	6.09	5.50	+.59
65-74	5.95	5.50	+.45
75 plus	6.06	5.50	+.50
TOTAL	6.00	5.50	+.50
	Home Improvement Loan		
	percent		
Age			
55-64	14.68	15.00	-.32
65-74	14.39	15.00	-.61
75 plus	13.72	15.00	-1.28
TOTAL	14.39	15.00	-.61

of financial services. As shown on Table 7, 22 percent of the respondents experiences some problem in using services, including almost 40 percent of those over 75. Health and transportation problems were most important. Among those 75 or older, 15.6 percent cited health problems and 19.5 transportion problems. These were also important problems for those with incomes less than $7,500, and those with less education than a high school graduate. While certainly age, income, and education are related, many programs may be designed to serve specific subgroups and it is important to note the important characteristics of groups which have problems of access.

DISCUSSION

Evidence from the survey shows older consumers to be involved, and concerned participants in the financial services market. There is some evidence that older consumers do not understand how to accomplish savings or borrowing goals as they search among different options. The high ranking for the importance of "high rates" belies the overwhelming concern about having money for emergencies. Certainly there is evidence to support other findings that older consumers are very concerned about financial insecurity [9, 11, 12]. Phillips and Sternthal have noted that when the elderly feel less competent, they are more easily influenced [13].

TABLE 7. Household Characteristics and Problems

Characteristic	Health	Transportation	Safety	Inconvenience	No Special Problem
	Problem of Access to Service				
	percent				
Age					
55-64	3.8	5.0	.5	4.8	84.6
65-74	6.1	8.7	1.0	1.8	81.0
75 plus	15.6	19.5	0	.4	61.6
χ^2(df = 2)	56.06**	62.30**	5.04	23.76**	89.09**
Income					
less than $7500	16.5	21.9	.6	1.0	58.1
$7500-14999	7.79	9.9	.7	1.6	78.2
$15000-34999	2.9	3.5	.4	2.6	89.6
$35000 & over	2.0	4.8	1.2	6.0	83.1
χ^2(df = 3)	91.06**	120.32**	1.80	20.65**	174.96**
Education					
No H.S. Diploma	12.8	16.0	.4	.9	67.9
H.S. Diploma	5.1	7.2	.8	1.7	82.1
Some College	3.0	6.0	.3	5.5	84.6
College Degree+	3.6	4.3	1.8	3.2	87.1
χ^2(df = 3)	54.45**	53.70**	7.74	27.44**	75.78**
TOTAL (n = 2012)	7.5	10.1	.7	2.3	77.6

*χ^2 significant at .05 level
**χ^2 significant at .01 level

This survey raises questions as to whether recent deregulation benefits the older consumer. Longevity in account usage, and continuing high usage of passbook accounts suggest that additional help may be needed to insure that older consumers reap the benefits of recent changes in the financial sector.

Strategies for changes can be categorized into a variety of areas including: consumer education; information dissemination; advocacy; consumer protection; and new technologies. Fernstrom's excellent policy review expands on several of these options [2].

In the changing market environment, it is particularly important to understand how to make the appropriate economic decision. The survey evidence shows that older consumers may not know how to make the right decisions. Consumer education, workshops, financial counseling are clearly appropriate responses. Without knowing how to use information, more information may not help. For instance, unless the older consumer recognizes the importance of services provided and their relationship to a "net" rate of return, there will be little incentive for the institutions to try to help older consumers by providing more expensive services.

In a market where older consumers have strong concerns, yet may be unable to understand fully the multi-faceted nature of the environment, it is important to recognize the role of advocacy for the older consumer. In this market, the older consumer may be more vulnerable for not knowing when to complain, and for being strongly tied to an existing institution. Both advocacy, and consumer protection in terms of standardized rate disclosures would help the older consumer.

The financial sector has committed themselves to exploiting new technology, for example, in the expanding use of Automatic Teller Machines. By the end of the century many believe that the delivery of services through computer terminals or TV linkups will become the single most important method of access to the bank. This possibility could greatly benefit those with problems of physical access. However this also raises a number of concerns for older consumers, not the least of which is whether they will be left behind with the growing reliance on new technology. The oldest consumers are least likely to use ATM's and deposit by mail services.

It will become the responsibility of public agencies, or advocates, to assure that they continue to have access to the financial services market.

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COLLEGE STUDENT USAGE OF EFTS
AND LOCUS OF CONTROL

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Abstract

An increasing number of college students are using bank accounts with electronic features. Based on their limited experience, primarily with automatic teller machines and debit cards over an average of 2.8 years, eighty percent were satisfied. Over 70 percent felt that EFTS had increased their control of their money, while 28 percent had experienced a decrease.

This study examined the relationship between EFTS usage and locus of control as measured by the Multidimensional multiattributional Causality Scales (MMCS) developed by Lefcourt et al. Locus of control was not related to the decision to use or not to use EFTS. But, the relationships between some of the sub-scales measuring attribution of success and failure and consumer experience with EFTS merit further examination. Since EFTS can direct and facilitate either spending or saving, and since its use may activate overdraft credit transactions, it is important to understand its effects on attribution for success or failure in carrying out specific goals.

Automatic Teller Machines (ATMs) accessed by debit cards put consumers into direct usage of Electronic Funds Transfer Systems (EFTS) in their day to day handling of money. The nature of this service and its potential are closely related to its expansion (16).

EFTS is defined in Federal legislation to include any transfer services in which electronics plays a part (26). A 1983 Federal Reserve survey (23) found that 68 percent of households with bank accounts had an account with EFT features and used it at least occasionally.

Of the reported studies, many examine customers of a particular institution (1, 8, 18, 25). Considerable attention has been focused on definition of market segments, but none has focused particularly on the college student. While convenience appears to be a major attraction of EFTS, a major deterrent may be fear of loss of control of money (7, 18, 22, 24).

The studies seldom address theoretical issues. An exception is a Virginia Bankers' study (28) that through factor analysis identified two fairly distinct ways of handling money. One group of consumers is concerned with the concrete reality of money, money being considered as a sign of power and personal control as well as a sensual experience. For the second group the role of cash itself and the desire for immediate gratification play little part; they are more aware of process.

People who have, according to bank records, received debit cards may not have recognized their functions or used them (18). In a follow-up study from bank records those who were "not aware" more strongly agreed that they would lose control of their banking if they used the card, than did the "aware".

Eletronic banking represents an external mechanism that performs certain functions for the consumer. It might be viewed as a facilitator in personal money management if, in fact, the individual using it is able to more effectively and more conveniently carry out a variety of day to day tasks and implement longer range decisions (3).

PURPOSE

The purpose of the study is to describe patterns of EFTS usage by college students and interpret it within the context of general money management. Since the issue of control is at the heart of management, an analysis will be made of students' general characterization of their control of money, locus of control, use of the various functions of EFTS and evaluation of the effects of this use on control of money.

Personal and family finance texts are usually based explicitly on management process to be applied on a self-help basis in the routine handling of money. Financial counselors and financial planners provide external intervention to modify dysfunctional patterns. Understanding of economic and psychological variables is important to the development of intervention strategies at either level. For purposes of this study propensities such as locus of control and general characterizations of self are being examined in context of the use of a relatively new external factor, the technology of EFTS. Implications will be drawn for education of the consumer and for financial counselors and planners.

General Characterization of Self

Major studies of economic behavior have sought both objective economic data and perceptual measurements (6, 10, 11). A general self characterization measure was used in an American family study; 46 percent characterized their families as leaning toward being spenders and 48 percent as savers. The proportion of spenders was higher among younger people. There was a high degree of consensus among family members relative to these general characterizations.

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The author, in using similar general questions has found that 54-60 percent of college students consider themselves to be *spenders* rather than *savers*, and that 70-80 percent feel they are *in control* of how they spend their money, rather than as having *little control*.

Locus of Control

The individual who feels that things are beyond his control has little motivation to make the effort required in day to day management (17). Lefcourt summarizes the importance of locus of control (LOC) in the functioning of the individual: "When individuals are involved in situations where personal competence can effect the outcomes, they tend to perform more actively and adequately than when the situation appears less controllable to them" (12, p. 187). Lefcourt (14) traces the study of locus of control, LOC, as it has grown out of attribution theory and social learning theory. LOC measurements were constructed shortly after it had been demonstrated that people differ in the ways they respond to their failure and success experiences, if the outcomes of the tasks on which they perform are said to be due to skill or chance. Phares and James in the late 50's had focused on different goal areas, as well as on a general overall LOC score. During the same period Weiner had found that in the achievement related context, success and failure are perceived as chiefly caused by ability, effort, difficulty of task or luck.

Rotter's 1966 general Internality-Externality (I-E) scale (19) has been widely used to measure the relatively stable personality characteristic. He (20) has suggested that goal specific measurements were to be encouraged, particularly if one is seeking practical application. Rotter had not hypothesized a bi-modal distribution, but a normal curve describing the population of interest, though his instrument has been used for classification purposes.

Many of the recent attempts to measure components of LOC and to develop instruments for specific populations are built on modifications of the Rotter I-E scale (4).

Davis and Davis (5) suggested that externality can serve a defensive function for the individual. They predicted and found in males and females that differences of attributions would be found after failure, but not after success. Gregory (9) pointed out that while tests with children show different attributions for success and failure, the same may not be true for adults.

Wolk (27) concluded that "what appears crucial is the congruence between generalized internal or external perception of control and its behavior correlates and the actual specific contingencies of environment". He notes that youth show some ambiguity because they are faced with developing personal effectiveness and with compliance with the system.

Females, more often than males have been unpredictable on the basis of Rotter's I-E scale (13). There is some evidence that females more often than males attribute achievement failure to ability, while males tend to attribute achievement failures to effort (13).

In one study of financial management of displaced homemakers (21) no significant difference was found between I-E scores of displaced and non-displaced homemakers, but the latter were slightly more internal. The younger group, under 35, were significantly more external than were the over 35 group.

Of particular relevance to the examination of money management might be the findings, based largely on laboratory experiments (a) that internals engage more in preliminary steps of data gathering than externals, which in turn might increase their probability of success were the task actually to transpire and (b) internals spend more time deliberating about decisions in skill demanding tasks than chance determined tasks while externals tend to show opposite reactions.

Internals are likely to prefer delayed, larger reinforcements to smaller immediate reinforcement (14).

The Multidimensional-Multiattributional Causality Scale (MMCS) developed by Lefcourt *et al*. (13, 15) incorporates a 24 item scale based on scholastic *achievement* and a 24 item scale based on *affiliation*, ability to get along with others, two goals considered important for the college population. Each is examined in terms of whether *success* and *failure* are attributed to *internal factors* (ability and effort) or *external factors* (task context and luck). The test is scored in the external direction. Internal and external scores are not necessarily negatively correlated, thus it is possible that persons endorse both externally and internally coded items.

The characteristics of a manager, particularly as related to attention to detail, use of information in decision making and possible acceptance of delayed gratification are the same characteristics identified with internal orientation. Therefore the LOC concept and the use of the MMCS which was developed for a college population meet the purposes of this research.

Cronback alphas for MMCS have been found to range between .58 and .80 for total achievement externality and between .58 and .81 for affiliation externality. Corrected Spearman-Brown split-half correlations range from .67 to .76 for achievement and from .61 to .65 for affiliation. Given the rather heterogeneous nature of the largest scales this is considered reasonable. (15)

QUESTIONS AND HYPOTHESES

The questions to be examined are:

1. Are individuals' self characterizations, ownership of individual versus joint account, frequency of usage related to satisfaction with EFTS?
2. Are individuals' self characterizations, ownership of individual versus joint account, frequency of usage related to their perceptions of the effect of EFTS on their control of money?
3. Do males and females differ in their satisfaction with EFTS, the perception of effects of EFTS on their control of money and on LOC?

Due to the pausity of epirical research in this specific area of money management, the hypotheses relative to LOC and EFTS are based primarily on the author's earlier theoretical analysis of the nature of EFTS and family managment from a systems perspective (3).

For simplicity in the statement of hypotheses, the terms internals and externals will be used, though the level of measurement is on an interval, rather than a nominal scale.

General hypotheses related to locus of control are:

H1 Internals, those who have lower externality scores, will be more likely than externals to:
  a. use ATMs;
  b. characterize themselves as being in control;
  c. be more satisfied with EFTS;
  d. feel that EFTS has increased their control of their money.

H2 Internality-externality will not differ: for spenders and savers.

METHODOLOGY

All instruments took the form of written questionnaires. The Personal Approach to Money Management survey was used with college students enrolled in an upper level Personal and Family Finance course before there had been any discussion of money management. One part of this instrument was a checksheet of financial services, including ATMS. Those who indicated that they used ATMS regularly were classified as users and those who were not familiar with the services, who had decided not to use or who had debit cards but had not used them were classed as non-user. Hypotheses using the term ATMS are based on this distinction.

Later in the Finance course the MMCS was administered, and those students who were making use of electronic banking were asked to complete a questionnaire describing their use of different features and their evaluation of the effect. Those hypotheses using the term EFTS are based on this sub-group.

A convenience sample was justified on the basis that the major purpose of the exploratory study was to examine the dynamics of the use of EFTS.

Data were coded and then processed on the University of Maryland Univac computer using the SPSS programs: Frequencies, Breakdown, T-test and Contingencies.

FINDINGS

Three quarters or more of the students were in the age 21-30 category.

Fifty four percent of the EFTS sample characterized themselves as spenders and 46 as savers compared to 59 percent of the general group as spenders and 41 percent as savers. Eighty percent of the EFTS sample, as compared to 75 percent of the general group felt they were in control of how they spent their money. Those who characterized themselves as savers were more likely than those who characterized themselves as spenders to also characterize themselves as being in control of how they spent their money (sig. at .05 level).

The average length of time over which EFTS had been used was 2.8 years. Eighty percent got their cards at a financial institution which they had been using previously. The predominant pattern of usage thus far is with one bank, 78 percent.

Uses of ATM reported by the students were as follows: to get cash, 88 percent; to check account balances, 76 percent; to make deposits, 66 percent; to transfer from savings to checking, 50 percent; to transfer from checking to savings, 49 percent; to transfer among other accounts, 19 percent. Three quarters of the respondents used individual accounts, one quarter joint accounts. Sixty two percent use their debit cards regularly and 38 percent have used them only a few times.

General Satisfaction with EFTS

By far the greater percentages of students, 89 percent, expressed satisfaction rather than dissatisfaction with EFTS, but those who were "somewhat satisfied" slightly exceeded those who were "very satisfied". For further analysis the group was simply divided into satisfied and dissatisfied. While 95 percent of females and 83 percent of males were satisfied with EFTS, the difference was not significant. Nor were there significant sex differences in relation to characterization as spender-saver or on basis of level of control, the type of ownership or the frequency of card usage.

Effect of EFTS on Control of Money

Nearly 72 percent of respondents indicated that EFTS had increased their control of their money, while 28 percent had experienced a decrease in control. There were more who indicated "some increase" than who indicated "great increase".

For further analysis the group was divided into increased and decreased. There were no differences in perception that EFTS had increased or decreased control on basis of sex, characterization of self as spender-saver, ownership of card or frequence of use. The probability level for a relationship between perception of EFTS as increasing control and general characterization of self as in control was .057.

Evaluation of Changes in Handling of Money Due to EFTS

In examining the extent to which EFTS actually facilitates or hinders the handling of money, nine specific areas were considered. The changes were generally viewed as positive, but in many areas there were high proportions of the respondents who had no real preference, or who said they did not know the effect. See Table 1.

Areas that showed the proportions tipped most heavily toward improvements were: "time and place of banking," "use of credit" and "coordination by family."

Concern With Problems

Eight kinds of problems that were revealed in the literature and in the pre-test of the instruments were presented so that respondents could rate on a 4 point scale their level of concern with each. Table 2 reveals that "machine out of cash" was the item most frequently cited as a serious concern, followed by "theft of card," "loss of PIN number," and "loss of card." The first two concerns are external factors, followed by two internal factors. Few of the students expressed concern with privacy issues or with unauthorized use by a family member.

Locus of Control by Sex

Table 3 summarizes the mean scores and t-values for Males and Females who took the Personal Approach to Money Management test, those among them who took the EFTS users survey and for comparison, the normative data from the Lefcourt *et al*. (13) Canadian student groups.

While females showed slightly higher externality scores in this research and the males in Lefcourt's research showed higher scores, the only significant difference was Lefcourt's finding that males were more likely than females to attribute success to external forces in one area--affiliation success. The female scores showed higher standard deviations.

Students were treated as one group for further analysis. A summary table of the results of the statistical analysis of data relating to the questions and hypotheses examined in the study appears in Table 4. The questions have been discussed. An examination of the hypotheses dealing with LOC follows:

Locus of Control and Use or Non-use of ATMs

No significant differences were found in LOC scores of those who used ATMs regularly and those who were non-users. Thus H1a which had predicted that Internals would be more likely to use ATMs was not confirmed.

Locus of Control and General Characterizations of Self

For the EFTS users, MMCS scores on 4 of the 7 scales were higher for those who characterized themselves as having little control, or conversely, Internals were more likely to characterize themselves as being in control, thus supporting H1b for achievement-total (sig. at .05 level), affiliation-failure and affiliation total (sig. at .01 level) and externality (sig. at .05 level). This does not, however, make a very strong case for the use of such a wide self characterization measure in relation to money handling behavior; the researcher had found in 1981 that "control of my money" means management and knowing how I stand to some students, but others feel in control if they have adequate resources and are not in debt (3). It is possible, too, that the general control-little control measure may be interpreted by respondents as having or not having self-control, without considering external factors at all.

Locus of Control and Satisfaction With EFTS and with Effect of EFTS on Control of Money

Significant differences in the predicted direction were noted between LOC and satisfaction with EFTS. Higher externality scores were found for the dissatisfied in both achievement and affiliation-failure (sig. at .05 level). H1c which stated that Internals will be more satisfied with EFTS than Externals was supported in these areas, but not for the other three measures.

H1d which stated that Internals will be more likely to feel that EFTS had increased their control of their money than were Externals, was supported only in the area of achievement-success (sig. at .05 level).

Locus of Control and Spender-saver Characterization, Evaluation and Concern

There was no significant difference between Spenders and Savers among the EFTS users with regard to internality or externality, confirming H2a.

CONCLUSIONS AND IMPLICATIONS

The major purpose of the study was to examine the

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TABLE 1: Frequency of Rankings for Changes in Different Aspects of Handling Money Since Use of EFT (N = 74)

Aspects of Handling Money	NONE NOTED	MUCH BETTER	SOMEWHAT BETTER	NO PREFERENCE	SOMEWHAT WORSE	MUCH WORSE	DON'T KNOW
Time and Place of Banking	9	16	26	16	4	1	2
Shopping Habits	17	2	15	27	9	0	4
Coordination by Family	20	3	11	25	3	1	11
Use of Credit	22	2	11	30	3	0	6
Savings and Investment	15	7	14	19	11	4	4
Verification of Bills & Payments	19	6	14	20	8	2	5
Keeping Track of Account Balance	15	12	20	16	8	2	1
Verification of Posting	15	9	18	19	5	4	4
Amount of Service Charges	21	2	3	34	5	2	7

TABLE 2: Level of Concern with Some Problems in EFTS (N =71)

Problems	A SERIOUS CONCERN	SOMEWHAT CONCERNS ME	SLIGHT CONCERN	NO REAL CONCERN	MISSING
Loss of Card	22	22	14	12	1
Theft of Card	26	17	14	14	
Family Member Using Card Without Permission	5	3	10	52	1
Computer Fraud	17	15	21	17	1
Loss of PIN	26	13	10	22	
Machine Out of Cash	31	18	12	10	
Loss of Privacy	8	10	15	37	1
Money Not Credited Immediately	14	24	22	11	

TABLE 3: Mean Locus of Control Scores for General Students, EFTS Users Among Them and Lefcourt's Normative Data, by Sex.

	General Students				EFTS Users				Lefcourt			
	Males (N=64) Mean	sd	Females (N=111) Mean	sd	Males (N=13) Mean	sd	Female (N=21) Mean	sd	Males(N=100) Mean	sd	Females (N=100) Mean	sd
Achievement-Success[1]	21.92	7.36	23.44	8.70	17.77	6.52	20.00	6.29	18.17	4.79	17.60	5.23
Achievement-Failure[1]	22.55	5.80	23.14	5.93	24.62	7.12	21.68	6.80	22.50	5.69	21.49	6.10
Achievement-Total[2]	45.00	9.89	47.38	11.84	41.46	11.57	42.24	10.88	40.67	8.03	39.09	9.08
Affiliation-Success[1]	22.64	5.02	23.90	9.74	19.00	3.86	19.81	4.98	21.07*	5.02	19.65*	4.84
Affiliation-Failure[1]	23.97	5.18	24.49	6.28	23.75	6.28	22.45	5.14	23.12	6.27	23.34	5.21
Affiliation-Total[2]	47.03	7.88	46.07	11.47	43.75	9.05	42.29	8.56	44.19	8.91	42.99	8.25
Total Externality[3]	91.81	14.33	99.37	48.19	87.17	11.70	84.67	18.90				

1. twelve-item scale (0-48)

2. twenty-four item scale (0-96)

3. Total Externality score is obtained by adding total Affiliation score with Total Achievement Score

*Significant at .05 level

TABLE 4: Summary Showing Relationships Examined, Population Studied, Statistical Tests Employed, Significance Levels, and Findings

Questions and Hypotheses	Variables		Statistical Test	General Students	EFTS Users	Findings	
Q 1a	Satisfaction and	Spender or Saver	chi-square 1-tailed		n.s.	Q 1a	There is no difference between spenders and savers in their satisfaction with EFTS.
b	"	" In control or little control	chi-square 1-tailed		n.s.	1b	There is no difference in satisfaction with EFTS expressed by those who characterize themselves as in control and those who characterize themselves as having little control.
c	"	" Individual or joint Account	chi-square 1-tailed		n.s.	1c	There is no difference in satisfaction with EFTS expressed by those who have individual accounts and those who have joint accounts.
d	"	" Minimal use or regular use of card	chi-square 1-tailed		n.s.	1d	There is no difference in satisfaction with EFTS expressed by those who have used only a few times and those who are regular users.
Q 2a	Effect of EFT on Control of Money	Spender or Saver	chi-square 1-tailed		n.s.	Q 2a	There is no difference between spenders and savers in their evaluation of the effect of EFTS on their control of money.
b	"	" In control or little control	chi-square 1-tailed		.05	2b	Those who characterize themselves as being in control are more likely than those who generally characterize themselves as having little control to feel that EFTS has increased their control of money.
c	"	" Individual or joint account	chi-square 1-tailed		n.s.	2c	There is no difference between those who hold individual accounts and those who hold joint accounts in their evaluation of the effect of EFTS on their control of money.
d	"	" Minimal use or regular use of card	chi-square 1-tailed		n.s.	2d	There is no difference between those who have used EFTS only a few times and those who use it regularly in their evaluation of the effect of EFTS on their control of money.
Q 3a	Sex	Satisfaction with EFTS	chi-square 2-tailed		n.s.	Q 3a	Satisfaction with EFTS does not differ by sex.
b	"	" Effect of EFTS on Control of Money	chi-square 2-tailed		n.s.	3b	Evaluation of the effect of EFTS on control of money does not differ by sex.
c	"	" Locus of Control	t-test 2-tailed	n.s.	n.s.	3c	Locus of control for neither the general students nor the EFTS differed by sex.
H 1a	Locus of Control and	Use of ATM	t-test 1-tailed	n.s.		H 1a	Locus of control did not differ for ATM users and non-users. or 1983-84 groups.
b	Locus of Control and	In-Control little control	t-test 1-tailed	ACHF .01	ACHT .05 AFFF .01 AFFT .01 EXT .05	1b	Internals were more likely to characterize themselves as being in control. The significant differences were in attribution of causality for achievement-total, affiliation-failure, affiliation-total and for the total externality score.
c	Locus of Control and	Satisfied-Dissatisfied	t-test 1-tailed		ACHF .01 ACHT .05 AFFF .01 EXT .05	1c	Internals expressed more satisfaction with EFTS than did externals. The not-satisfied attributed both achievement failure and affiliation failure to external sources as well as achievement-total and the total externality score.
d	Locus of Control and	Effect of EFTS on Control of Money	t-test 1-tailed		ACHS .05	1d.	Those who attributed achievement-success to external forces felt EFTS decreased their control of money more than did the internals. No significant differences were found on the other sub-scores.
H 2	Locus of Control and	Spender-Saver	t-test 2-tailed	n.s.	n.s.	H 2	Locus of control did not differ between spenders and savers.

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dynamics of EFTS usage, with particular emphasis on how it might relate to LOC.

A glance at Table 4 reveals that LOC measures produced more significant results in relation to failure attribution than in relation to success attribution. This seems to support the findings of Gregory (9) who argued that any congruence between intent and success probably overrides other motives and results in findings that Internals do not differ from Externals in attribution of success but that after failure, when there is no congruence between intent and outcome, Internals take more responsbility.

Even though the number of significant differences in the testing of LOC hypotheses was small, an examination of all 7 LOC scales for which a direction had been predicted indicates that about 6 out of 7 were in the predicted direction. Considering the exploratory nature of the study and the relatively small population further study appears to be merited.

This study did not identify goals or intent related to saving, spending and other financial objectives which might have helped to clarify this important issue. An ipsative measurement would be desirable. In addition, the subscales of the MMCS seem to provide more useful insight into the dynamics of money management than do the total scores. Future research with a probability sample from adult users might employ discriminant analysis to develop consumer profiles.

It is recognized that EFTS networks are being developed at a rapid pace in the 80's after a very slow start in the 60's and 70's. This study could not reflect wide usage at point of sale or over a long period of time. In some respects the study provides base line data.

In educating consumers as well as in financial counseling and financial planning several areas appear to merit consideration: 1. the differences between debit and credit transactions, 2. the integration of new forms of information concerning account balance and transactions into one's working record system, 3. an understanding of one's own style of control, 4. an understanding of the features of the account one opens and of the contract implications involved; 5. and awareness of consumer protection legislation and the importance of quick response to errors or loss of card. (23).

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THE CHANGING FINANCIAL MARKET

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Changes in the financial services industry have been spurred by inflation, general economic conditions, deregulation, and available technology. Innovations in this industry have resulted in an ever expanding choice set of financial products and services for families. These three papers address the issue of how people interact with and relate to the financial services industry. These papers also provide some insight as to how consumer professionals might help this interaction.

FINDINGS AND IMPLICATIONS

The authors of all three papers conclude that consumers need more information to interact effectively and efficiently with the financial services industry. This is most clearly demonstrated by the Jensen-Chen paper which identified the gaps with regard to interest rate information. Hampton, Greninger, Kitt and Bouton specifically address the need for consumer education for the elderly.

However, the problems facing the elderly consumer identified by both Jensen-Chen and Hampton et al, may be a cohort problem, not an age problem. Younger consumers (e.g. people in their 30's today) should be more adept at adapting to changes when they reach their 60's. Thus, while this generation of elderly consumers may need some extra help and advice, it is not clear that future generations of elderly will continue to need this level of extra help.

Both the Jensen-Chen and Hampton et al, paper addressed the information processing concerns of consumers. Providing more information may not be the solution to the consumer's problem if that information is not available in a usable form. Delivery of information is also critical to its use. State Offices of Aging and County Cooperative Extension Services are in prime positions to work with financial institutions to deliver useful and usable information to consumers.

The Hampton et al, paper discussed the issue of risk associated with some of the new services, particularly the use of ATM cards. While it is important for consumers to be aware of the risks and liabilities in ATM use, it is important also to keep these risks in perspective. As cited in the Churaman article, only 6 percent of persons surveyed by the Federal Reserve Board alleged an error in their use of ATM's and 95 percent of those who complained were satisfied with the resolution of their problem. Similarly, only 0.7 percent of respondents alleged an unauthorized withdrawal from their ATM-accessed accounts and none lost any money [1].

A more recent Bureau of Justice Statistics study revealed that banks lost between $70 and $100 million in 1983 due to fraudulent use of ATM's [2]. In 30 percent of the cases, consumers shouldered the loss, averaging $255. In another 17 percent of the cases, consumers and banks shared the loss; the average loss for consumers was $74. As these losses become larger, there is a potential for transferring more of the risk, and cost, to consumers via the bank's fee structure.

The Churaman paper provides some baseline data on sense of control and its relation to money management practices. However, the lack of significant results in the models presented precludes any clear implications for consumer educators. The paper implies that internal control is preferred to external control, but the process of becoming an internally controlled consumer is related more to human development than to the consumer economics field. It is reasonable to assume that understanding a consumer's locus of control can help financial counselors and planners work better with their clientele. Consumer economists can and should work with colleagues in the human development field to identify tools for consumer empowerment.

METHODOLOGY AND MEASUREMENT PROBLEMS

It is often difficult to measure how consumers relate to the marketplace and to analyze that relationship. Hampton et al, used an interesting hypothetical case approach, but the 0-1 dependent variable that resulted needs to be analyzed using probit or logit procedures, not OLS regression. Thus, their concern over a low R^2 and proposal to add variables to their model should be set aside until they see the results from using a different functional form.

The additive measure of "concern" used in the Hampton et al paper is problematic in that it creates a dependent variable which might be better treated as a categorical versus interval variable. Also, much like interpersonal comparisons of marginal utilities, levels of concern are difficult to assess across a sample. Much may depend on the weights people place on these concerns. In collecting data, it may be desirable to ask about the perceived probability of an event occurring and then interact the given probability with a level of concern measure.

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Weights also play a role in the factors or characteristics people desire in financial products and services. People may want both high rates of return (interest), liquid emergency reserves, and insured accounts (as in the Jensen-Chen paper), but it is unlikely that these features are evenly weighted in the consumer's decision making process. These implied weights account for the finding that elderly consumers want high rates but have kept their accounts in the same financial institution (probably in passbook savings) for 20 or more years--the cost of transferring money between firms apparently is higher than the resulting increase in interest, at least for people in the Jensen-Chen sample.

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A CASE STUDY OF SOCIETY'S RESPONSE TO CATASTROPHIC ILLNESS: THE END-STAGE RENAL DISEASE PROGRAM

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ABSTRACT

This paper describes how society has responded to the issue of providing treatment for catastrophic illness. The end-stage renal disease (ESRD) program is discussed as a case study. An evaluation of the program, in terms of efficiency and equity, indicates that it has been fairly successful in providing permanent kidney failure patients with equal access to care. However, the program has not fared well in terms of efficiency or equity with respect to individuals needing other types of health care. Policy implications for the ESRD program and for treating other catastrophic illnesses are presented.

INTRODUCTION

In recent years health care costs have risen substantially. National health care expenditures rose from $74.4 billion in 1970 to $322.4 billion in 1982 [30]. Birnbaum [4] noted that total resources consumed by catastrophic illness alone accounted for more than 20 percent of national health care expenditures in the late 1970s. These expenditures reflect both general inflation in the economy and advances in medical technology for treating illness. The rising costs of health care in general and of medical technology specifically have lead to numerous discussions concerning the allocation of resources across health care programs, and to the rationing of treatments within programs. In response, there has been an increasing interest in health care program evaluation which addresses both economic and social costs, including lives saved [13].

The need for careful assessment of health care programs is particularly evident in the case of treatments resulting from technological advances "which place some previously incurable and inevitably fatal conditions within the powers of medicine to retard, if not to control" [19, p. 8], but often at very high costs. Chronic conditions so treated are often referred to as catastrophic illnesses. For an individual with a catastrophic illness, the threat to life and economic burdens are more pronounced than with other illnesses. Katz and Capron [19] have defined a catastrophic illness as

> ...one for which some form of unusually expensive treatment must be available which can at least sustain life for a period of time. Moreover, the availability of insurance coverage or other financial support does not remove a condition from this category; the emphasis is on the great expense of the treatment, no matter who pays for it. [p. 8]

Major technological advances have been made for treating chronic diseases which often entail expensive long-term care. However, many of these interventions do not cure disease, and questions remain concerning the patient's ability to cope and to regain functioning. Since all persons with chronic diseases cannot be expected to benefit from medical technology, decisions to allocate resources to treat such conditions must be based upon careful analysis.

The purpose of this paper is to discuss how society has responded to the issue of providing treatment for catastrophic illness. The provision of treatments for individuals with end-stage renal disease (ESRD), chronic or permanent kidney failure, is examined as a case study. The discussion begins with an overview of the disease, treatments, related legislation and program growth. Second, the program is evaluated in terms of efficiency and equity. Cost-effectiveness analysis is used primarily to assess program efficiency. Policy implications for the ESRD program and for treating catastrophic illnesses, in general, are also presented.

THE END-STAGE RENAL DISEASE PROGRAM

Background

End-stage renal disease is a general designation for all diseases which lead to chronic kidney failure. Chronic kidney failure results when the kidneys permanently cease to perform their usual functions to such a degree that without treatment, death will soon occur. Primary treatment options available for individuals with ESRD are kidney transplantation, hemodialysis, and peritoneal dialysis. Kidney transplantation is a surgical procedure in which diseased kidneys are replaced with healthy ones obtained from living related donors or cadavers. Hemodialysis performs the kidney's purifying function by filtering the blood through an artificial kidney machine where wastes are removed before the blood is returned to the body. In peritoneal dialysis, the filtering of the blood takes place within the patient's abdominal cavity without the blood leaving the body. Dialysis can be performed in the individual's home or in a hospital or clinic.

With the passage Public Law 92-603 (Social Security Amendments of 1972) [22], ESRD patients became the first, and thus far only, victims of catastrophic illness in the United States whose treatment costs are paid primarily by the federal government. With this legislation, Medicare coverage was extended to individuals under age 65 with permanent kidney failure who were not already disability benefits recipients. These individuals qualify as Medicare recipients and are subject to the deductible, premium, and co-payment of the Social Security Act. To be eligible for ESRD program benefits, an individual is required to be insured or entitled to a monthly insurance benefit under the Social Security or Railroad Retirement Act, or to be the spouse or dependent of an individual who is so entitled. Under the original legislation, the federal government was to pay 80 percent of the patient's medical expenses and the other 20 percent was to be covered by the patient or a third party payer such as Blue Cross/Blue Shield, State kidney programs, or private non-profit organizations.

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Prior to the passage of this legislation, major funding sources available for paying treatment costs included such federal programs as Medicare (for those over age 65), State programs, private hospital insurance programs, and patients' personal resources. Because resources for treatments were scarce, patients were selected to receive dialysis or transplants. Selection was often based on criteria such as age, medical stability, family involvement, criminal record, economic status (e.g., income, net worth), and employment [16]. The decision to provide treatment was often influenced by financial constraints, particularly in the case of dialysis. By largely removing the financial barriers to treatment, the federal government became the gatekeeper of dialysis and transplantation [19]. No longer was selection to be a matter of social worth and wealth, as was often the case before the legislation.

The ESRD program is administered by the Health Care Financing Administration (HCFA) in the U.S. Department of Health and Human Services. The primary goal of the program has been to assure ESRD patients equal access to high quality, cost-effective medical care.

Much progress has been made to provide equal access to medical care. According to Burton [6], ESRD would claim at least 45,000 lives if not treated with heroic means such as dialysis and transplantation. As of December 31, 1983, the latest date for which these data are available, 78,099 individuals were receiving ESRD treatments; 92 percent were dialyzing and 8 percent had received transplants in that year [31]. This is in contrast to the 16,000 beneficiaries covered in 1974, the first full year of the program [10]. In 1983, ESRD program beneficiaries represented approximately 93 percent of the ESRD population in the United States. Actual expenditures paid by the ESRD program for beneficiary services in 1983 were approximately $1.72 billion [31] compared to $250.5 million in 1974 [10]. It is estimated that more than 87,000 patients in the United States will be receiving program benefits by 1986 at a cost of almost $3 billion [29].

The original ESRD legislation stressed equal access to care; however, more recent legislation emphasizes intraprogram economy and cost-efficiency. The End-Stage Disease Program Amendment of 1978 [23] was designed to encourage home dialysis and transplantation as the most cost-effective treatments. Included among the provisions for home dialysis were full coverage for home dialysis supplies and 100 percent reimbursement of the reasonable costs for home dialysis equipment and maintenance. Provisions to encourage transplantation included an extension of post-transplant Medicare entitlement from 1 to 3 years and 100 percent reimbursement of kidney donor expenses. The Omnibus Budget Reconciliation Act (OBRA) of 1981 [24] included a further incentive to promote home dialysis through a differentiated prospective reimbursement method based on dialysis setting [11]. Another major provision of the OBRA made Medicare the secondary payor for services furnished to ESRD beneficiaries during a specified period of time up to 12 months if beneficiaries were also covered by employer group health plans. In addition, reimbursement for home dialysis equipment and maintenance was reduced from 100 percent to 80 percent.

Program Evaluation and Policy Implications

In this section, the ESRD program is examined in terms of efficiency and equity, two important criteria for evaluating health care programs. Efficiency refers to the allocation of resources to obtain maximum benefits for a given expenditure. Economic efficiency requires that resources are being put to their most valuable uses. Equity refers to the fairness of the resource distribution. Policy implications based on the evaluation are presented. Cost-effectiveness analysis is used to evaluate the cost-efficiency of the program.

Cost-effectiveness analysis is useful for this type of evaluation since alternative uses of resources to achieve a specified goal (an increase in the number of lives saved due to intervention) are being compared and only a single program outcome is envisaged (lives saved). With cost-effectiveness analysis the value of a life is imputed based on the dollars spent per year of life gained due to intervention, thus avoiding placing an explicit value on human life. The implicit value of a life year (IVLY), the cost-effectiveness criterion, may be expressed as follows:

$$\text{IVLY} = \frac{\text{total present value of costs}}{\text{sum of discounted life years saved}} . \quad (1)$$

Alternative treatments are ranked based on the IVLYs; the lowest value represents the most cost-effective strategy. The cutoff level of permissible cost per life year saved is based on the resources made available by society to achieve the goal [34].

Since the late 1960s, various studies have been conducted to access the intraprogram cost-effectiveness of alternative ESRD treatments in terms of the IVLY. A comparison of IVLYs based on the gross social costs of ESRD treatments is presented in Table 1. Gross social costs are the social opportunity costs of resources to provide treatments. Here they are represented by the various expenditures associated with each treatment. All values are presented in 1981 dollars. The results are not entirely comparable because of differences in the definition of treatments and costs; however, similar rankings for transplants, home dialysis, and in-center dialysis result.

The most cost-effective treatment modes are living related donor (LRD) transplant and home dialysis. Implicit life year values for a LRD transplant range from $12,319 [27] to $22,400 [18]. Values for home dialysis range from $15,944 [2] to $28,456 [28]. When LRD transplants and cadaveric donor (CAD) transplants are included in the analysis as separate treatments [27, 18], home dialysis is more cost-effective than is a CAD transplant. In all instances, in-center dialysis is the most cost-ineffective of the treatment modes with values ranging from a low of $18,600 [32] to a high of $44,142 [28].

Although the various treatment modes may differ in terms of the effect they have on patient quality of life, none of the values presented were adjusted to reflect such differences. However, as noted by Ludbrook, "It is not certain that quality of life considerations would alter the allocation of resources [for ESRD treatments]; they may reinforce the order of selection as they reinforced the cost-effectiveness ranking of treatment" [21, p. 347].

A simple interprogram comparison of IVLYs indicates that ESRD treatments maybe somewhat less cost-effective than are other health care programs which have also been designed to increase life years saved. For example, Weinstein and Stason [35] estimated the cost per discounted quality adjusted life year (QALY) to menage hypertension (including costs due to medication side effects) to be in the range of $3,000 to $20,000, with $10,000 being common for mild hypertensives. Cole and Berlin [9] estimated that the undiscounted IVLY for an individual undergoing an elective hysterectomy to be $8,000. Discounting would likely quadruple this number however. The discounted present cost of mobile coronary care units to prevent heart attack deaths per QALY was estimated by Zeckhauser and Shepard [36] to be $1,985. A low cholesterol diet aimed at the same objective yielded a cost of $6,025 [36]. Although the values are not completely comparable due to differences such as time period and quality adjustment, it is evident that ESRD patients are competing with potentially large numbers of other individuals with major medical conditions for limited health care resources. As the competition for health care resources becomes more acute, rationing by design or by default might again be necessary for ESRD treatments, as was the case before the Social Security Amendments of 1972 [15].

TABLE 1. SUMMARY OF MAJOR END-STAGE RENAL DISEASE STUDIES: IMPLICIT LIFE YEAR VALUES (1981 DOLLARS)

Reference Study	Country	Discount Rate	Years	Home Dialysis	In-Center Dialysis	LRD Transplant[a]	CAD Transplant[a]		LRD/CAD Transplant[a]
							Home	In-Center	
GAO, 1977	U.S.	-	2nd	17,767	35,535				
Stange and Sumner[b], 1978	U.S.	5% - 7%	10	28,456	44,142		24,900	28,815	
Roberts et. al., 1980	U.S.	-	life	21,212	39,630	12,319	23,839		
Ludbrook[c], 1981	U.K.	7%	life	15,944	30,790				12,783
DHHS[d], 1982	U.S.	-	annual	16,706	18,600-23,350				
Garner[e], 1984	U.S.	10%	20	25,177	31,582	22,400	31,148		

[a] Living related donor (LRD), cadaveric donor (CAD), and living related donor and cadaveric donor combined (LRD/CAD) transplants.

[b] Values based on low estimates of survival probabilities for cadaveric transplants. Home dialysis and in-center to home dialysis options yielded the same implicit life year values.

[c] Values based on high cost estimates and all ages.

[d] Values based on per treatment estimates for home, independent facility, and hospital-based facility dialysis; three treatments per week were assumed. Hospital-based facility dialysis was the most costly mode.

[e] Values based on low estimates of survival probabilities for all individuals undergoing treatment across all age and sex categories.

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To assess efficiency within the ESRD program, it is necessary to examine where resources are actually being allocated. Although legislation exists to encourage the more cost-effective treatment modes, home dialysis and transplantation, the majority (75 percent) of all ESRD patients receiving treatment in 1983 were dialyzing in-center [31], the most cost-ineffective treatment. The dominance of in-center dialysis suggests that certain constraints and barriers exist which perhaps preclude the use of the more cost-effective treatments for all patients and which directly affect the efficiency of the program. For example, 50 percent of the dialysis population is over the age of 55; these individuals are probably not the best candidates for transplantation. Some of these patients may also have medical complications or other constraints which eliminate home dialysis as an option. Thus, in-center dialysis may not only be the most cost-effective treatment for these individuals, it may be the only viable alternative. Although only a minority of ESRD patients are true candidates for transplantation, the number of LRD transplants today is limited by the willingness and ability of living relatives to donate kidneys. Thus, this option is not currently a viable solution to the problem of rising costs associated with the ESRD program. In the case of a CAD transplant, improvements in patient survival and graft retention rates are necessary if it is to become a more cost-effective option. However, even with these improvements, the CAD transplant may also be a limited treatment option unless the supply of donor kidneys can be increased.

Barriers to the most cost-effective treatment modes also need to be identified and removed to promote efficiency. Barriers include a lack of public awareness of the need for donor organs, cost and resource constraints of the patient and patient's family, treatment availability, and biases of medical teams associated with chronic kidney failure which reflect differences in treatment orientation and philosophy. With more specific information concerning constraints and barriers, the ESRD program can potentially become more efficient.

In addition to evaluating the ESRD program based on costs per year of life saved, other relevant variables, whether or not with monetary values, must also be examined. For example, patient outcomes (e.g., survival, rehabilitation, and quality of life) and quality of care are important factors in assessing program efficiency. These are important because it is conceivable that an individual could be placed on a treatment for which he is not well suited, or he may not received adequate care due to reductions in services. These could lead to increases in total ESRD program costs, and to patients settling for less in terms of care. Until recently, there has been little emphasis on the rehabilitation of patients. Several researchers [2, 18, 20] have identified potential deterrents to work for ESRD patients which include the receipt of government disability cash benefits, prejudices of employers, and general job availability. Coordination of the ESRD program with vocational and occupational rehabilitation programs to help patients become more active in caring for themselves and in becoming employable again has also been lacking [2, 18]. By focusing attention on the rehabilitation of individuals, improvements in patient quality of life could be expected since studies indicate that working is related to greater perceived quality of life [5, 7, 8, 18].

Based on the allocation of resources and patient outcomes, the ESRD program does not appear to be as efficient as it possibly could be. With the most recent ESRD legislation, it is obvious that federal government is attempting to reduce program cost. However, by focusing on cost-efficiency primarily, the least costly treatments could be promoted with little regard for which treatments are best for patients. Thus, as resource allocation and rationing decisions are brought into sharper focus, the need for adequate data concerning costs, patient outcomes and characteristics, program management, and quality of care become more critical [12, 17, 34].

When evaluated on the basis of equity, results of studies [10, 25] indicate that the ESRD program has made much progress in providing ESRD patients with equal access to care. Growth in the number of beneficiaries covered by the program, discussed earlier, is evidence of this. In addition, the program has been successful in protecting chronic kidney failure patients against the catastrophic cost of needed care [18].

However, by providing treatment to ESRD patients, individuals with other medical conditions in need of treatment are potential victims of discrimination. A few statistics can be used to highlight this issue. For example, in 1983, ESRD patients accounted for only 0.25 percent of all Medicare beneficiaries, but ESRD expenditures accounted for approximately 4 percent of Medicare expenditures [10]. Thus, the ESRD program is redistributing health care resources to individuals with permanent kidney failure and potentially away from other individuals needing care.

Currently the focus of the ESRD program is within program efficiency and equity. Yet, if resources for health care become more constrained than they are currently, the importance of efficiency and equity could extend from intraprogram to interprogram evaluation [14]. Thus, subsequent evaluations would need to address resource allocations for the treatment of other medical conditions, prevention activities, and research and development.

DISCUSSION

The ESRD program has opened the door to providing treatments for other catastrophic illnesses. However, due to unexpected growth in the ESRD program, policymakers are reexamining the issue of providing widespread coverage for expensive health care treatments, since other health care can be just as costly. For example, it has been estimated that a heart transplant costs $125,000 on average and a liver transplant costs $140,000 [26]. Yet,

> ...certain particular characteristics of catastrophic illnesses tend to distort the process of collective formulation of policy about allocation of resources for treatment. The immediacy and avoidability of death as a consequence of nontreatment, particularly when the lives of known individuals are at stake, put these decisions on a different level than many other medical ones. [19, p. 183]

Thus, when individuals and means of treatment are identifiable, policymakers are more likely to allocate resources for treatment. Birnbaum [4] suggested that given complex technologies which cost money and "save" lives, we use them. Yet, to determine if resources are being used efficiently and equitably, program evaluations should be conducted which include examinations of the short- and long-term consequences (e.g., medical, economic, ethical, legal) of resource allocation [1, 18].

The problem of severely constrained resources, and the realization that "not all persons with catastrophic or complicated medical conditions will be able to benefit from medical technology" [13] have lead to a reluctance to provide public support for other catastrophic illnesses. It seems evident that society may not be able to afford the best available medical technology to meet the health care needs of its population. However, the amount of resources available for catastrophic illnesses, and for health care in general, will depend upon the willingness of society to invest in health care as opposed to other needed and valued activities.

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THE ECONOMIC EFFECTS OF DEMAND MANAGEMENT ALTERNATIVES ON RESIDENTIAL MUNICIPAL WATER DEMAND

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ABSTRACT

The purpose of this paper is to provide information regarding the potential effectiveness of water demand management alternatives for municipal water facilities. When predicting and managing water use, the demand relationship is the basic equation integrating engineering and economic planning. Demand estimates provide price and nonprice determinants of demand and measure the economic effects of potential demand management alternatives. The inverse relationship between quantity demanded of a resource and its price, and increases/decreases in demand that can result from nonprice determinants of demand--such as conservation education and technology, income, number of household members, and seasonal influences--all affect demand.

Price and nonprice demand parameters included here are valuable for testing the potential impacts of management options which can be used to encourage water conservation and to devise appropriate pricing methods for suppressing peak demand conditions with short-run fixed or inelastic supply. In the case presented here, excess-demand can not be reduced to meet the supply of good quality water available by distribution of conservation education information and conservation devices, but rather requires an increase in the water rate levels. The price responsiveness of demand for water in this small midwestern community has implications for using the price of water as a demand management alternative given environmental conditions and household characteristics that have been identified as nonprice determinants of demand.

INTRODUCTION

Consumers have come to expect high quality water at relatively low prices. However, many communities are faced with the realities of limited water supply, water pollution and population growth. This leaves public decision makers and managers of publicly owned utilities with the challenge of finding the appropriate balance between supply and demand in the provision and pricing of high quality water. The need to educate policy decision makers is crucial if municipalities are to have adequate amounts of high quality water for residential use. Traditionally, water rates have been set by decision makers based on political decision-making and/or recommendations of consulting engineers with little, if any, assistance from economists. Effects investigated in this study provide alternatives for managing municipal water facilities.

In the small midwestern community, which is the basis of this study, the water utility is operating in the short run where the supply of high quality water is limited and demand for such water exceeds the supply. The purpose of this paper is to familiarize persons with the specific issues behind this water allocation problem and to indicate policy regarding the potential effectiveness of water management alternatives for municipal water facilities. The remainder of the paper consists of four sections. First, a statement of the problem and the relevance of this problem for the typical small community in this study. Second, the water demand model is presented. The third section uses the water demand model to provide estimates of price and nonprice demand parameters. The fourth section provides a summary with implications for application of the demand estimates for demand management alternatives that can be used by policy makers and managers of municipal water utilities.

THE PROBLEM

Typically, the establishment of water rates and other related decisions have been approached from either a "supply management" or "demand management" point of view. The supply management method is implemented by first making a short-term demand forecast and then establishing water rates. Short-term forecasting does not consider how price and other factors affect demand for water by residential users. Instead, the forecast of water "requirements" is derived by multiplying the projected population of the service area by the estimated average per capita use [2], [8] and [9]. Clearly, this forecasting technique assumes that the demand for water is perfectly inelastic at the forecasted aggregate quantity demanded.

Traditionally, after the projected water use "requirement" has been determined, water rates are based on cost of service techniques developed through the American Water Works Association (AWWA) [1], [2], [8], [9], [14], [15]. The usual steps, under these conditions, for determining water rates include 1) estimating the required revenue to cover the costs of operating the system, 2) classifying the costs of service according to shares going to peakload capacity and maximum day and base use, 3) allocating costs to specific user groups (determined by use amounts rather than their responsiveness to demand) and, finally, 4) determining the cut-off points for the blocks in the traditional decreasing block rate structure [1], [2], [15].

Supply managers see water use as a requirement that must be met and view use as outside the control of management [8], [9]. These decision makers fail to understand or use the relationship between economics and engineering in the construction of new treatment and distribution systems and in choosing alternative rate structures and setting rates [8], [9], [14], [15].

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The alternative, economic based procedure is to estimate the responsiveness of demand to price and other factors affecting demand. Some of these factors are under the control of utility managers and political decision makers. Demand elasticities must be the basis for sound management. Therefore, identification and use of the state-of-the-art methodology for estimating demand elasticities is of great importance. In addition to the price elasticity of demand it is important to know how responsive demand for water is with respect to demand shift parameters such as: conservation devices, conservation education, income, the number of household members in the residence, average monthly temperature and monthly amount of precipitation.

The typical small community from which the sample used here was drawn has excess demand for good quality water. Existing supply has been increased to meet existing demand by mixing low quality water with good water. The poor quality water is from wells with high chloride content--the pollution has resulted from the disposal of oil mining by-products. The management alternatives in this excess demand problem result in an interest in the responsiveness of demand for water that goes beyond the traditional interest in the elasticity of demand resulting from a price change and includes the elasticity of demand for water regarding the responsiveness of shift parameters: conservation devices and conservation education, given household characteristics of income and the number of household members in the residence and, lastly, environmental conditions.

THE WATER DEMAND MODEL

Traditionally, the pricing of water supplies by water utilities has been based on the use of a block rate schedule--usually a decreasing block rate schedule, such as the one illustrated in Figure 1. Using a measure of marginal price alone is inadequate because it does not measure the effects of a block rate structure. This holds true because the differences in the intramarginal rate steps must be accounted for [3], [4], [5], [7], [11], [16], [19]. These effects are captured through defining a variable called a difference measure.

The difference measure (Δ) is defined as $\Delta = TE - (Q^* \times P^*)$ where TE is the total expenditure per billing period, Q^* is quantity demanded and P^* is the marginal price of water that is applicable for the billing period. With a decreasing block rate structure, incremental amounts of water are priced at different rates with the marginal rate decreasing as quantity demanded increases. The difference measure becomes important with a block rate schedule because the total expenditure is not simply price times quantity as when there is a market determined price faced by all consumers regardless of quantity demanded. The concept of a difference variable can be illustrated with the use of Figure 1. Assume that the total quantity of water demanded is Q_3^* and the effective marginal rate applied to that total quantity demanded is P_3^*. Then the following can be observed from Figure 1:

$$TE = [P_1 \times Q_1] + [(Q_2 - Q_1) \times P_2] + [(Q_3^* - Q_2) \times P_3^*] \qquad (1)$$

$$\Delta = TE - [Q_3^* \times P_3^*]$$

$$\Delta = \left[[P_1 \times Q_1] + [(Q_2 - Q_1) \times P_2] + [(Q_3^* - Q_2) \times P_3^*] \right] - \left[Q_3^* \times P_3^* \right] \qquad (2)$$

Graphically, the difference measure, (Δ) is the area abcdef, i.e., the difference between what each consumer's actual total expenditure for Q_3^* units of water is and what the consumer's total expenditure would have been if all Q_3^* units of water were priced at P_3^* per unit. With money income held constant, this area under the Marshallian demand curve represents an implicit income transfer--consumer surplus--extracted by the producer from the consumer as quantity demanded increases. It is worth noting here the decreasing block rate structure is a form of price discrimination as illustrated by the transfer of surplus (what would be consumer surplus with marginal cost pricing) from consumer to producer.

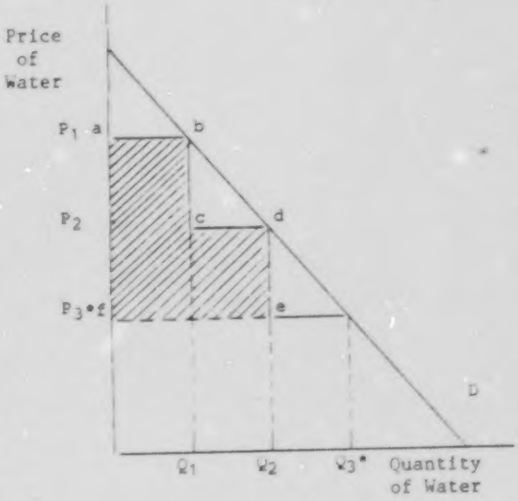

FIGURE 1. Demand Curve for Water

Demand theory can be used to determine directional hypotheses for variables included in the demand estimation model. The literature, developed over the last ten years, can be used to provide information on the size of the elasticities, the functional form and components of the model. Danielson, for example, used pooled cross section and time series data for 1969-1974 to estimate total monthly residential water demand ($\varepsilon^d = -0.27$), winter monthly demand ($\varepsilon^d = -0.305$) and sprinkling demand ($\varepsilon^d = -1.38$) where winter demand was for November through April and sprinkling demand was the quantity for May through October minus winter demand. Danielson [6] did not use the difference variable, however. Howe [11] has recently pointed out not only the need for adapting the difference variable, but that there is a problem with separating demand by sectioning the time series into winter, summer or sprinkling periods even though Howe and Linaweaver [12] had previously done so. The elasticity coefficient for income (house value) was estimated to be 0.334 in the total demand equation. This study is representative of pooled cross section and time series data using the old methodology (without the difference variable). Elasticities are included here for comparison purposes.

Howe [11] used data from Howe and Linaweaver [12] to reestimate the demand parameters with a demand model that included the difference variable. The resulting price elasticities were smaller when the difference variable was included in the demand equation. The previous elasticity was estimated to be -0.23 while the reestimated elasticity was -0.06. Hanson and Narayaman [10] provide an example of time series analysis of monthly variations in municipal water demand. Water demand was a function of price, average temperature, total precipitation, percentage of daylight hours and a growing season variable. Without cross section data, the price elasticity of demand was -0.469 in this time series forecasting model.

In general, the demand model used in this study can be written as

$$Q^d_t = f(\Phi_t, \Psi_t, P_t, \Delta_t) \qquad (3)$$

where

$\Phi \equiv$ vector of demand parameters:
  1. Measuring conservation as a management technique:
    a. conservation information
    b. conservation devices
  2. Controlling for household characteristics:
    a. income proxy (house value)
    b. number of household members

$\Psi \equiv$ vector of environmental factors:
  1. Models A1 and A2:
    a. average monthly temperature
    b. monthly precipitation amount
  2. Models B1 and B2--Season
    a. Dummy variable = 1 for "Summer"--May through October
    b. Dummy variable = 0 for "Winter"--November through April
  3. Models C1 and C2--Sprinkling:
    a. Dummy variable = 1 for high use months--June through August
    b. Dummy variable = 0 for low use months--September through May

$P \equiv$ price vector measured as the effective marginal rate for each month's billed use

$\Delta \equiv$ difference variable

$Q \equiv$ monthly water use measured by the billing amount based on rounding actual use amounts up to the nearest whole thousand gallons with a minimum charge for 2,000 gallons

$t \equiv$ the value for each variable is included for each month. (cross section variables are repeated each month)

As stated in equation (3), the billed amount of water demanded was estimated as a function of house value, the price of water at the effective marginal rate, difference factor, number of household members, conservation information (dummy variable indicating that conservation information had been included in the bill for that month) and conservation device distribution (flow restrictors and water bags for water closet tanks were scheduled to be installed in August and September in all residences in the community in a door-to-door campaign). Also included were environmental variables identified in the literature: average monthly temperature and total amount of monthly precipitation (see models A1 and A2 in Table 1). Two alternative models reported here included a seasonal dummy variable where summer months are May through October and winter months are November through April (see models B1 and B2 in Table 1) and a sprinkling dummy variable for June through August, heavy outside watering months in the area (see models C1 and C2 in Table 1).

When estimating the demand for water, it is necessary to know how variables other than price--such as conservation education and technology, income, number of household members and seasonal influences such as temperature and precipitation--affect water use. The implicit directional hypotheses of this model are that price is negatively related to quantity demanded, the difference variable representing the change in real income due to a decreasing block rate structure--given the post-price adjustment quantity--is positive for decreasing block rate structures, conservation information and use of conservation technology such as use of capacity and flow restricting devices reduce demand at each given price level, water is assumed to be a normal good, therefore, the relationship between demand for water and income is hypothesized to be positive. Number of household members is hypothesized to be positively related to demand with a greater number of persons shifting demand outward. Regarding the environmental variables, temperature is hypothesized to be positively related to demand while precipitation amounts should be negatively related to water demand by residential users.

DEMAND MODEL ESTIMATION

The demand model for this study was estimated on the basis of pooled time series and cross section data. The data are from a random sample of residential water customers in and around a rural community of approximately 600 residences. The residential water use data for the original 148 residences in the sample were collected from city records for August 1981 through August 1983. Explanatory variables cover the same calendar period as the water meter readings. Household

TABLE 1. Demand Estimation Models: Residential Water Demand

						Ψ				P	Δ
Model	Intercept	Number of Household Members	House Value (income)	Conservation Education	Conservation Devices	Precipitation	Temperature	Season	Sprinkling	Marginal Price	Total Expenditure Change
A_1	0.9 (5.41)	0.045 (5.15)	0.062 (2.80)	-0.031 (1.20)	0.024 (0.85)	-0.0055 (2.45)	0.0022 (5.25)	--- ---	--- ---	-0.54 (39.88)	0.15 (35.08)
A_2	1.18 (4.65)	0.052 4.73)	0.068 (2.00)	-0.045 (1.39)	0.048 (1.30)	-0.0076 (2.65)	0.0026 (4.92)	--- ---	--- ---	-0.79 (56.82)	--- ---
B_1	0.98 ((5.93)	0.045 (5.14)	0.063 (2.80)	-0.063 (1.93)	0.074 (2.24)	--- ---	--- ---	0.049 (3.01)	--- ---	-0.54 (39.84)	0.15 (35.04)
B_2	1.27 (5.03)	0.052 (4.72)	0.068 (2.01)	-0.084 (2.11)	0.108 (2.67)	--- ---	--- ---	0.062 (3.15)	--- ---	-0.78 (56.76)	--- ---
C_1	1.0 (6.01)	0.045 (5.14)	0.062 (2.80)	-0.039 (1.16)	0.051 (1.33)	--- ---	--- ---	--- ---	0.048 (2.35)	-0.54 (39.81)	0.15 (35.07)
C_2	1.28 (5.10)	0.052 (4.72)	0.068 (2.00)	-0.055 (1.32)	0.084 (1.76)	--- ---	--- ---	--- ---	0.055 (2.13)	-0.79 (56.75)	--- ---

Because the quantity, price and income variables are included in the double log functional form, the coefficients of price and income are the demand elasticities.

Elasticities with difference variable (Δ):

$$\epsilon^d = -0.54$$

$$\eta^y = +0.062$$

Elasticities without difference variable (Δ):

$$\epsilon^d = -0.79$$

$$\eta^y = +0.068$$

The power (Cobb-Douglas) functional form and the linear functional form were tested; however, only the power functional form equations (log form) are reported here as appropriate: natural log of water use (dependent variable), natural log of marginal price, and natural log of income proxy (house value). All other parameters are included assuming linear, additive relationships.

t-values reported in parenthesis.

member data were obtained by telephone interview. Assessed value of the residence, used as a proxy variable for income, was taken from 1981 assessments on record at the county assessor's office. Because complete data were not available for all cases for all variables in the model, 26 cases were excluded from the analysis. Some of the excluded cases were large common metered living arrangements, usually mobile home parks.

Households were not deleted from the sample if they moved during the sampling period if complete information was available for all variables measured for the occupants of the residence. In other words, the resident was not the unit of analysis, but the amount of water billed to the residence and associated variables relative to the residence's occupants at that time. This is superior to previous studies containing only stable, continuous residents.

Three basic econometric models for pooled cross section and time series data were used to estimate parameters for residential demand for water. Checks for serial correlation and heteroskedasticity were made to insure that the methodology provides unbiased estimates of parameters and valid tests of statistical significance [13]. The absence of both serial correlation and heteroskedasticity in the pooled cross section and time series data allows use of a special ordinary least-squares regression procedure on the entire data set [17]. The Fuller and Battese Method [19] (variance component model) gives sufficient conditions in order for the regression coefficients to be unbiased and asymptotically normally distributed.

The findings of this study support all directional hypotheses. All elasticities are well within acceptable ranges for the elasticity coefficients. In all equations, price is negatively related to quantity demanded. The resulting price elasticity is in the inelastic range ($\epsilon^d = -0.54$), as suggested by the nature of the good—lack of substitutes for municipal water supply and the dominance of indoor use over outside use for the yearly period. Each of the equations using the old methodology (where the difference variable was omitted) had as the literature suggests [11] a higher price elasticity of demand ($\epsilon^d = -0.79$). The price and income coefficients are statistically significant at least the 0.05 level. The income elasticity in each of the models is positive and small ($\eta^y = +0.06$ with difference factor and $\eta^y = +0.07$ without difference factor), indicating, as hypothesized, that water is not only a "normal" good, but also in the range of a "necessity." The difference variable has a positive and statistically significant relationship with quantity demanded, as expected from a decreasing block rate structure where the consumer would pay less than actually charged if all use were charged the rate applicable at the margin. The effect of number of household members on water use is positive and statistically significant in all models. Regarding conservation techniques, distribution of conservation information has the hypothesized negative effect on demand; however, the coefficient is not statistically significant except in equation B3 which omits the difference variable and uses the seasonal dummy variable as the environmental control. Use of conservation devices has the anticipated sign but is statistically significant in only models B1 and B2 which use the seasonal variable. Note that conservation devices were scheduled to be installed during August and September of 1983, but the time series data includes only August of 1983 at this reporting time. Regarding the environmental variables that were incorporated in the models, precipitation was negatively and temperature was positively related to water demand where included (models A1 and A2). The effects were statistically significant in the two models. Substituting the dummy variable season (where summer equals 1) retained the statistically significant effect with an upward shift of the regression line from the influence of summer (reduced precipitation levels in the area and increased temperatures both encouraging water use). Inclusion of sprinkling in model C1 was also statistically significant and the direction of the influence is as anticipated, positive. This indicates increased use in the three heaviest outdoor watering months for this midwestern community: June, July and August. In the traditional demand equation (without the difference variable) these effects were also statistically significant.

SUMMARY AND IMPLICATIONS

This study was completed under conditions of increasing concern for adequate water quality and quantity in the short-run. Its purpose was to determine the economic effect of several demand management alternatives on residential municipal water demand. Shift parameters included here are valuable for testing the potential impacts of nonstructural management options which can be used to encourage water conservation and devise appropriate pricing methods for suppressing peak demand conditions with short-run fixed or inelastic supply. These management techniques are especially necessary for communities such as this community with incentives to increase water quality by reducing demand for water.

This study indicates that pricing policy is the only consistently effective management technique that can be used by water-utility decisionmakers to manage demand for water. In the case presented here, excess-demand can not be effectively reduced to meet the supply of good quality water available by distribution of conservation education information and conservation devices.

The price responsiveness of demand for water in this small midwestern community has implications for using the price of water as a demand management alternative given environmental conditions and household characteristics that have been identified as nonprice determinants of demand.

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ALCOHOLIC BEVERAGE INDUSTRY: HINDSIGHT, OVERSIGHT, AND INSIGHT

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ABSTRACT

Over the last decade, there has been growing concern about the advertising of alcoholic beverages. This concern increasingly has become more vocal and intense and has culminated in an attempt to ban alcoholic beverage advertising from television. Charges and counter-charges have been leveled by both sides. Neo-prohibitionists claim that the effects of advertising are a major contributor to alcohol abuse, alcoholism, and a catastrophic increase in per capita consumption from 1970 to 1980. Industry spokespeople respond by saying that they only want to encourage moderate drinking, have no intention of market expansion, that drinking is on the decline, that there is no good evidence concerning the effects of alcoholic beverage advertising, and that they have a first amendment right to advertise, regardless. This paper will examine the issues and data concerning alcohol consumption, abuse, and advertising, the alcohol ad ban proposition and its opposition, and the alcoholic beverage industry's varied reaction to the ban. Finally, recommendations will be made concerning the advertising of alcoholic beverages.

ALCOHOLIC BEVERAGE ADVERTISING: ITS STATUS

How Much Advertising?: More is Better

The basic thrust for alcohol marketers has most recently been that more is better. According to the center for Science in the Public Interest (CSPI), "the alcoholic beverage industry spends over $1 billion a year encouraging Americans to drink" (1, p. 1). CSPI also alleges that "between 1970 and 1981, the amount spent on alcohol advertising more than tripled, far outdistancing inflation" (1, p. 1). In addition, individual companies openly admit to spending large amounts of money to advertise just one product. B & B Liquor has spent an estimated 6 to 7 million dollars since last year in an effort to bring charm to the brands staid image (28, p. 1). In 1981, Miller spent almost $21 million on advertising for Lowenbrau, and Anheuser-Busch, not to be outdone, spent $22.4 million promoting Michelob, its version of the super premium beer (8, p. 350). Villa Banfi spent about $17 million in order to insure brand loyalty for Riunite wine (42, p. 86). The largest and most successful alcohol marketers are the ones who are spending the most on advertising. As a matter of necessity, their competitors are following suit. Beer and wine advertisers who are allowed by most states and professional organizations to advertise on television and radio make extensive use of such media. Large portions of advertising dollars are spent on staying within the sight and hearing of the American consumer. According to CSPI documents, more than 90% of the total Anheuser-Busch advertising expenditure in the measured media was for broadcast ads (1, p. 1). By its own admission, Villa Banfi spent 90% of its advertising for Riunite on television (8, p. 350).

Old Wine in a New Flask

"Fitness in a Bottle."

Alcohol beverage marketing and advertising have found new direction since the late 1960's and early 1970's. As the country shifted from one dominated by sedentary white males to one which emphasized the physically fit, racial minorities and females, so has its alcoholic beverage marketing and advertising.

Alcohol marketers are cashing in on the fitness trend in advertising, as well as in their new product introductions. Liquor ads show young healthy attractive people enjoying their products. Ronrico Rum even shows a shapely young woman enjoying a mixed drink after a workout (6, p. 138). An ad from the House of Seagrams shows that servings of distilled spirits, beer and wine contain the same amount of alcohol (14, p. 32). This is an obvious appeal to attract consumers who feel that beer and wine are lighter and therefore healthier choices of alcoholic beverages. Even the scenery used in liquor advertisements is designed to attract the newly health conscious consumer. Canadian Mist, for example, uses image advertising which features a bottle of the product superimposed over a beautiful scene with water cascading down through the mountains. Canadian Mist, one of the few companies in the distilled spirits category to improve its sales, is like other Canadian whiskies, lighter in color and taste. This has allowed a tie-in to the "light" trend in the alcohol market (36, pp. 101, 102).

Beer and wine advertising pursue the health conscious consumer with even more vigor. Beer commercials show men being "rewarded" with that special beer if they are members of the winning team, or after a hard day's work (3, p. 348). There is even a TV commercial that shows the best beer bellies in America. Of course, the "bellies" are all flat and trim. New light beer and white wine products with fewer calories and/or lower alcohol content are flooding the marketplace. These products promise not to fill you, while encouraging consumers to drink more. There are two problems with this fitness oriented marketing: (1) consumers see beautiful people in the ads and then tend to forget about all of the negative side effects associated with alcohol consumption; (2) the ads project an unspoken promise that if you drink this product, you can be like the actors in the ads, attractive, popular, healthy winners. Young people are particularly vulnerable to this type of advertising.

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"You've Come a Long Way Baby: Women & Minorities."

Alcohol advertising is increasing in publications targeted to reach women and minorities. More and more alcohol advertisements are showing up in Working Woman (56, p. 80), Jet (53, p. 36), and Ebony (26, p. 35) magazines, for example. It is now more socially acceptable for women to drink. In addition to traditional alcohol, the new light beverages and fruity creamy (III, p. 36) drinks encourage women, as well as non-drinkers, to indulge. Canadian Mist hired a black-owned advertising agency to tailor an ad campaign for the black market. The mountains and streams were replaced by a well-dressed couple next to a bottle of Canadian Mist. The caption reads "Misting is settling for nothing but the best" (49, p. 103). Spanish language television and radio, as well as Spanish billboards in heavily Latin neighborhoods, attempt to court the Spanish speaking community.

"Something Old and Something New."

By far the biggest complaint from critics of the alcohol industry is that advertising targets to vulnerable groups of consumers, namely, young people and heavy drinkers (2, 12, 54, 41). Anyone who has ever been on a college campus can attest to the fact that alcoholic beverage advertising, particularly by brewers, is a daily fact of life. Even some in the industry realize that this is a problem. In a recent speech before the National Soft Drink Association, William Coors of the Adolph Coors Company said, "We should not be on campus." His company would not be, he added, if it weren't a matter of survival (41, p. 1). Of course, the majority of brewers would claim that they are not encouraging youth to drink more, but to drink their particular brand. However, the fact that some in the industry recognize that there is a problem, speaks for itself. There are some industry programs on campus that encourage alcohol awareness, but according to George Hacker of the CSPI, compared to advertising and marketing efforts, these programs are only window dressing (41, p. 2).

In its News Release, the CSPI charges that the alcohol beverage industry purposefully targets the problem drinker in its advertising, aided by life style research into the various attitudes associated with problem drinking (25, p. 1). Much industry advertising promises to help to reduce stress and help to reduce stress and help the drinker cope with the pressures of life. This type of advertising exploits the vulnerabilities of the alcohol abuser, and tends to reduce the incentive to control consumption (54, p. 2). One response by the industry to this type of charge of irresponsibility is that advertising encourages responsible consumption (31, p. 12).

These data concerning the quantity and quality of alcoholic beverage advertising clearly beg the question as to whether or not and then, if so, to what extent the American purchasing and consuming habits of alcoholic beverages are affected by advertising. The answer differs depending upon whom is asked. The CSPI reports that, "Sales have followed advertising trends, and that per capita consumption of alcoholic beverages increased over 30% between 1970 and 1980" (1, p. 1). On the other hand, industry sources tell a different story. A recent Wall Street Journal article quoting industry ources stated that, "Per capita consumption of most alcoholic beverages, after rising steadily during the seventies, has either dropped or leveled off during the past few years" (30, p. 1). The same article makes a specific case for the decline, or, at best, lagging growth of each of the major domponents of the alcoholic beverage industry (beer, wine and distilled spirits) through the 1980's (30, p. 1).

In its petition to the F.T.C. (39, p. 13), the CSPI links industry advertising to increased alcohol consumption, without the support of scientific research. Industry spokesmen and others contend that no causal relationship between advertising and consumption, let alone abuse, has been established (21, p. 74). Duncan Cameron, of the Distilled Spirits Council of the United States (DISCUS) accuses the CSPI of presenting unsubstantiated opinions on the effects of alcohol advertising (25, p. 1). Donald Strictland, a sociology professor at Washington University, St. Louis, who has conducted extensive research into the question, some of it funded by the U.S. Brewers Association, says his studies suggest that alcohol advertising has had little effect on total consumption. "And I don't see any connection at all between advertising and alcohol abuse." He says further that Booze Merchants "has absolutely no scientific merit at all. It's simply a case of using selective evidence to support an already-formed opinion" (21, p. 74).

A recent study attempted to analyze the effects of alcohol advertising on subsequent consumption. Consumers in a shopping mall were shown beer advertisements, or asked questions about the mall. They were paid with a gift certificate that had to be used immediately for dinner. Their alcohol consumption at the restaurant was then monitored, and a follow-up telephone interview occurred six to twelve weeks later. According to this study, the results showed no evidence that the advertising had any immediate or delayed effect on alcohol consumption (52, p. 34).

Perhaps the intensity, if not the absurdity, of the research conducted in this area is exemplified by a study showing that animals in a lab situation can learn to relieve stress by drinking, therefore demonstrating that stress may contribute to (animal) alcoholism (4, pp. 300, 301) without the contribution of advertising. The underlying theme of this research is, of course, that the consumption of alcoholic beverages is a more "national occurrence" than previously assumed.

ALCOHOL: ITS USE, ABUSE, AND EFFECTS

Consumption Data.

Data generally support the finding that alcoholic beverage consumption grew remarkably fast during the decade of the 1970's from about 21 gallons per person in 1970 to about 28 gallons in 1980. Data also support the findings that this growth was largely attributable to wine and beer increases both of which have had relatively flat sales on a per capita basis since 1980. Light beers and white wines accounted for a major portion of the growth during the 1970's.

Incidence of Abuse & Effects

Many authorities consider alcohol to be the number one drug problem and number two public health problem in the United States (22, p. 1). Approximately 14.7 million Americans abuse or are addicted to alcohol, with one of five teenagers (14-17) having a drinking problem (32, p. xi). Drunk driving causes approximately 25,000 deaths, one-half of the traffic fatalities each year (22, pp. 1, 27, 2), while other alcohol-related accidents claim another 30,000 lives (22, p. 1). There is increasing evidence that pregnant women should not drink any alcoholic beverages at all, especially in the early stages of pregnancy, when even small amounts can cause spontaneous abortion or low birth weight (35, p. 53). Fetal Alcohol Syndrome, found in about 2 percent of babies born to alcoholic mothers, results in defects such as facial abnormalities, growth deficiencies, mental retardation, as well as central nervous system disorders (3, pp. 354, 17, 53).

The total economic costs to our society are staggering. For example, it has been estimated that in 1983, the costs for treating alcohol abuse and the support (research, etc.) needed to provide treatment, exceeded $10 billion with another estimated $61 billion being consumed by the indirect costs of alcoholism (premature death and lost productivity). Other related costs (motor vehicle crashes, criminal justice, social welfare, those related to fire, etc.) are estimated to have exceeded $10 billion. In totality, these estimates exceed $81 billion for 1983 (18, p. 27).

THE BAN

Proposition & Opposition: The Issues

With the total costs of, and concerns about, alcohol consumption being so high, there is an increasing number of people and organizations demanding action. There is general agreement about the severity of the problem. But there is much disagreement and confusion about the proper solution. The most extreme proposal is the absolute ban of all alcoholic beverage advertising and other promotional efforts from television and radio, reminiscent of the television ban of cigarette advertising (40, p. 1). This sort of ban is not as farfetched as it sounds. The state of Oklahoma currently bans advertising of alcoholic beverages with more than 3.2% alcohol content (this does allow beer advertisements) on television, radio and print media. In a recent suit filed by the Oklahoma Telecasters Association, the U.S. Court of Appeals, 10th circuit, ruled in favor of the states right to restrict alcohol advertising (21, p. 74). Nationally, only beer and wine producers advertise on radio and television; distillers are limited to print through an industry agreement (30, p. 12).

The strongest proponent of the ban is a Washington, D.C. organization known as Consumer Science in the Public Interest (CSPI), which has mounted a national campaign, and has gathered the support of such groups as Mothers Against Drunk Driving (MADD) (21, p. 74) and Students Against Drunk Driving (SADD). Bills that would restrict advertising in some manner have been introduced in at least 10 states and the U.S. House of Representatives since January, and this is a movement that was presumed dead just a few years ago (21, pp. 72, 1). All proposed legislation is on the presumed relationship between alcoholic beverage advertising and consumption. According to CSPI's George Hacker, "Only a very naive person would argue that the massive amounts of sophisticated and expensive marketing efforts do not tend to whitewash the dangers of alcohol by imbuing alcoholic beverages with an image of total harmlessness and by reinforcing drinking as a social norm. The reaction of the liquor industry has been one of recognizing that they've got problems in this area of marketing and also of denying that their advertising or marketing has anything to do with alcohol abuse" (23, p. 4).

The alcoholic beverage industry, of course, feels that the proposed ban is far too restrictive. Alternatively, they suggest that further voluntary standards should be developed and instituted by and within the alcohol industry (11). There currently exists a voluntary code; however, this only concerns hard liquor broadcast advertising. It has been stated that either strong adherence to this standard is missing or that self-regulation fails where an industry is very competitive. It may also be suggested that besides what seems to be the inherent flaws in self-regulation, is the likelihood that the standard is no longer applicable.

Still, industry asserts that voluntary standards can work regarding the marketing and advertising of alcoholic beverages. Industry proposes the following alternatives: 1) Retain the current restrictions on hard liquor advertising, while restricting remaining product ads to late night hours. 2) Change the tone and direction of subseuqent advertisements so that drinking is not portrayed as an integral part of a happy self-fulfilling lifestyle. Also, more emphasis would be placed on moderation messages.

Most in the industry feel that such a restrictive measure as a comprehensive ban is a threat to their First Amendment right to use media advertising "as a marketing tool for brand selection" (37). Enforcement of these proposed measures, if left to voluntary cooperation may, as before, prove rather difficult. But as John DeLuca (former director of the N.I.A.A.A.)points out, "It's a discussion that needs to get going" (37).

Industry Response

The alcoholic beverage industry has specifically responsed to the proposed ban in one of four ways: 1) Ignoring it as being absurd. 2) Denying the existence of the cause and effect relationship between advertising and drinking. 3) Implicit admission of either the problem of drinking or the existence of the pro-banners by altering marketing and/or advertising approaches and themes. 4) Explicit admission of either the problem of drinking and/or the pro-ban movement followed by either funding of alcoholism study and/or supporting educational programs concerning drinking or aggressively and combatively lobbying against such a ban.

The four ways in which industry has responded to the proposed ban is almost a phased approach with the initial phase being a no-public-response phase (30, p. 12), followed by the denial phase as witnessed in the initial responses of industry-wide spokespeople (21).

Other responses include a modification of the marketing and advertising of alcoholic beverages on college campuses and the Bacardi Rum billboard, which has been particularly aggressive using this implicit recognition strategy. Examples of their efforts include: - The support of the public's outrage over the carnage caused by drunk drivers, as displayed by Seagrams, Barcardi, James B. Beam and Heublein. Part of their efforts are reflected in the holiday ads warning about drinking and driving (20, p. 20). - $1 million worth of air time has been spent by the "Friends Don't Let Friends Drive Drunk". More than 3,000 billboards have been posted as well (44, p. 48). - The Times Square-New Year's Eve neon sign whcih says, "Don't drive after drinking" (37, p. 21). - Ad spots in conjunction with the NFL featuring, for example, Drew Pearson, who invites parents and their children to sign a contract for life that they will neither drive when drunk nor be a passenger with a driver who has been drinking (20).

Supporting the study of alcoholism and/or educational programs about drinking appear to be the most popular at the present time. Some examples of these types of explicit admission responses follow:

- Adolph Coor is financially backing a test program at the Colorado School Mines in Colorado that emphasizes wellness activities. The reasoning behind it is that if students exercise and eat the right foods, they will not be likely to abuse a product like beer (52, p. 18). - The Stroh Brewery is financing a Miami (O.) University project that involves putting together an alcohol abuse program (52, p. 18). - Complete support for campus organizations (like BACCHUS) that are working on guidelines to ensure that campus alcohol standards will be upheld, while at the same time allowing beer companies their right to market their product in a free society. These quidelines will suggest that campus advertising not portray drinking as a solution to personal or academic problems for students, or as necessary to social, sexual or academic success (52, p. 18). - The Stroh Brewery has been an instrumental contributor and supporter of a program to educate Michigan bartenders to determine when a patron has had too much to drink and how to best deny patrons further drinks when they have had too much, without damaging their patronage (50, p. 12).

Whether these programs are viewed as genuine in effort or just cosmetic, is purely subjective in nature. The liquor industry views them in a very favorable way because, after all, they insist that their presence within the halls of academia is not to encourage non-drinking students to indulge, but rather to influence those of legal drinking age who have made the decision to drink, to use their product (52, p. 18).

The aggressive combative response is typified by William Howell, president of Miller Brewing Company, who has stated that the threat to ban alcohol advertising is real and that the industry must stick together to combat the threat by lobbying against it at state and local levels (46, pp. 35, 55, 12; 43, p.1).

Other proposed remedies

There have been several less extreme alternatives suggested in lieu of a total ban on television and radio advertising of alcoholic beverages. Some alternatives focus on advertising to those of the most vulnerable groups of consumers, namely, young people and problem drinkers. This strategy may involve: 1) banning all advertising that targets these two groups; 2) regulating the content of these ads; 3) banning promotional activities on college campuses. There is some scientific evidence that liquor advertising increases alcohol consumption among adolescents (37, p. 45). Increasing anti-alcohol advertising is another less extreme alternative. (In the area of cigarette advertising "anti-smoking commercials tended to reduce per capita consumption approximately two times as much as cigarette advertising tended to increase it" (7, p. 49). Compulsory health warnings on the labels of alcoholic beverages would presumably also be beneficial (21, p. 74).

This last group of alternatives would attack the results of alcohol-related problems, rather than the presumed cause (advertising). It has also been suggested that alcoholic beverage taxes be increased (38, p. 74) with the resultant money being made available to study, as well as combat, the problems of alcohol consumption. Secondly, the increased price would hopefully decrease sales. Finally, a concentrated movement to toughen penalties for drunk driving, in addition to raising the nation's drinking age to 21, would reduce that particular problem.

DISCUSSION/RECOMMENDATIONS

The Reality of the Ban: An Evaluation

Generally speaking, ad bans have not worked very well regardless of the legislative-enforcement-political system. There is substantial evidence that Eastern European coutries which have banned alcohol advertising have not experienced a concommitant reduction in alcoholism or alcohol misuse/abuse.

Similarly, the evidence is very persuasive that bans have not worked well in our political system. We are a society that cherishes both personal and collective freedom. Attempts to ban books and "the bombs" have not been very successful, and the track record of actual bans as exemplified by Prohibition and the cigarette advertising ban, is very poor.

Our political system favors industry because of its powerful lobbying potential. Secondly, there is not nearly enough scientific proof that clearly establishes any type of real cause and effect relationship between advertising and alcoholic beverage consumption. Thirdly, if only television or the electronic media were involved, advertisers would likely shift their ad expenditures to the print media. (Also, see discussion of cigarette ad ban below.) They would likely get their message across even if they had to go door to door. There is always some way to circumvent any restrictions. For example, Seagrams gets television exposure whenever it advertises its non-alcoholic mixers (42, p. 70). And finally, there is evidence that alcohol consumption is decreasing without benefit of the ban (35, p. 110).

Perhaps, the most persuasive argument against the alcoholic beverage ad ban is our most recent experience with the cigarette ad ban.

Cigarette Advertising: A Lesson Learned or Spurned?

The effects of the ban on cigarette advertising offers useful insight as to the possible outcome of an alcohol advertising ban. That ban was expected to have a beneficial effect for the anti-smoking movement; however, per capita consumption of cigarettes increased immediately following the ban and generally continued upward during the decade of the 1970's (43, p. 46). Additionally, the anti-smoking movement lost both its agressiveness and the powerful forum of television. After the industry invoked the ban in 1971, the number of anti-smoking television spots fell dramatically (43, p. 47).

Finally, the ban caused a re-allocation of media expenditures for the advertising of cigarettes. This re-allocation meant greater usage of print media with its greater targeting potential and a much enhanced cost efficiency for cigarette advertising (43, p. 48). At the very least, these results suggest that a total ad ban might be counter-productive to those who most desire it. At the most, they suggest a possible boomerang or backlash effect.

Selective Demarketing, Education, Research and Common Sense: A Matter of Joint Responsibility

Since the middle 1960's, many volumes have been written concerning social corporate responsibility, but not much has been written about joint responsibility between the corporation and the consumer. The area of alcoholic beverage advertising demands this focus.

- The alcoholic beverage industry must consider becoming an industry which is able to speak with one voice as opposed to the voices of its autonomous components (beer, wine and distilled spirits) with each having its own set of ethical rules and standards.

- The industry and/or its firms must consider including alcohol abuse experts and maybe even recovering alcoholics as gate keepers, with the purpose of them being a conscience regarding the advertising of their products. This recommendation is based on the severity of this country's alcohol problem, as well as the enormity of its economic and social costs.

- The industry should be conscious of prime alcoholic beverage consumption seasons (holidays, for example), and allocate a certain proportion of the ad dollars towards aggressively advertising moderation. (Some efforts have been made in this area).

- The industry must selectively demarket (i.e., known abusers, pregnant women, and the underaged) by making certain that their ads are neither directed to, nor disproportionately appeal to, those segments and/or counter-advertise to those markets. (Some of these efforts have been initiated.)

- The industry should continue its alcohol abuse and/or alcoholism research efforts.

- The industry should become very involved in educating all segments of the public concerning alcoholic beverages and their consumption.

The key to the aforementioned "joint responsibility" is the educational recommendation. Consumers must be taught to become responsible drinkers and to become involved in assuring that all earlier recommendations are activated. Their active involvement and participation should provide a healthier environment for both themselves and the alcoholic beverage industry.

The success of this educational recommendation and joint responsibility depends on the willingness of the alcoholic beverage industry to match their advertising intensity and resources with similar educational intensity and resources.

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CONSUMER POLICY ISSUES--DISCUSSION

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These three papers addressed important public policy issues. Two used a case study approach while the third used an empirical analysis. The methodological approaches were appropriately used and each paper offered potential solutions in addition to describing the problems.

Thesia Garner's analysis of U.S. provision of treatments for catastrophic illness, using treatments for end-stage renal disease as an example, was excellently written, logically consistent and addressed important concerns which included both efficiency and equity issues. In particular, the use of benefit/cost techniques to analyze intra- as well as interprogram efficiencies effectively raised salient questions for public policymakers.

The dilemma of how to allocate medical technology subject to individuals' and society's budget constraints has been growing for years but has only recently been dramatically revealed with the artificial heart operations. Benefit/cost analyses must contribute to resolving the dilemma because the problem is not only inherently moral and emotional but also economic.

"The Economic Effects of Demand Management Alternatives on Residential Municipal Water Demand," by Peck, et al., is a good empirical analysis and addressed not only a crucial natural resource problem but also an important component of public utility demand analysis, correct specification of price.

I was delighted to see micro-level data used in the paper as they are so rarely employed but provide needed insight. The methodology appeared sound; however, the paper would have been more convincing if it had revealed the methodology in more detail. For example, two major independent variables, use of conservation devices and distribution of conservation information, were not defined; sample size, often a critical constraint with microlevel data, was not reported.

I applaud the specification of price following Nordin's suggested approach which is a more accurate specification than marginal or average price, in a declining block rate structure [1]. However, I wish the authors would have elaborated on their reason for using the difference variable independently of the income variable. The difference variable doesn't have a lot of meaning by itself and is, as the authors point out, a reduction in consumer surplus, i.e., a reduction in income and thus may be netted from the income variable, improving the estimates of not only the price

One other question on methodology is why house value was used as a proxy for income when telephone interviews had been done and census data may also have been available with which to measure income.

I'll spend the remaining time addressing the approach and recommendations made in Bernacchi's paper which discussed an important and timely topic, the need and potential for self-regulation of alcoholic beverage advertising. Bernacchi effectively used a case study approach to evaluate the feasibility and efficacy of banning all alcohol advertising from radio and TV.

The major shortcoming of the paper involves the recommendations Bernacchi made at the end of the paper, the success of which, by his own admission, "depends on the willingness of the alcoholic beverage industry to match their advertising intensity and resources with similar educational intensity and resources" (p.9).

The first recommendation on p. 8, reads:

> The alcoholic beverage industry must consider becoming an industry which is able to speak with one voice as opposed to the voices of its autonomous components (beer, wine and distilled spirits) with each having its own set of ethical rules and standards.

On face value this action could be considered an illegal restraint of trade. Bernacchi might instead, have proposed the industry trade association establish standards of conduct with which members be encouraged to conform, as other industries such as cellulose insulation manufacturers have done. Institutional advertising would be a complementary action. These are lawful approaches and would be effective in gaining compliance if the economic incentives existed for adhering to the proposed standards.

That Bernacchi failed to discuss the economic incentives for business adoption was the major concern I have with the other recommendations.

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Bernacchi asked an economic question, "Who should protect the consumer?" Benefit/cost analysis, and indeed, common sense, force asking a subsequent question, "Will the revenue gained by the company exceed the revenue lost by the ethical strategy proposed?" Both short and long term profits need to be considered in answering this question. While the recommendations on pages 8 and 9 for improving the ethics of the alcoholic beverage industry's advertising and marketing programs enhance their image and goodwill which is important in maintaining profitability, they tend to counter the economic goals of producers, namely to maximize profit. Thus while the recommendations are admirable and I'm sure would be applauded by many consumers, they are unlikely to be widely adopted by alcohol beverage producers.

By relying on businesses to employ moral and ethical solutions and ignore economic considerations, consumers are left without protection of any type or, at best, with less efficient forms of protection. The following brief analysis of economic disincentives to the industry's adoption of some of the recommendations shows why this approach might leave consumers without the protections suggested.

If consumers, such as parents of college students, were grateful for the improved ethics of beer companies and bought more of a particular brand of beer, because that company had decided to demarket college campuses, companies would have the incentive to demarket. However, it's likely that parents sensitive to such an action by a beer company would not increase their total consumption of beer due to their own attitudes toward alcohol consumption. Or, since the major beer producers already control a large share of the market, the parents may very well already drink one of the two major brands of beer; thus brand shifting would be limited. It would therefore be difficult to argue that heightened ethical standards produce significant increases in revenues through either increased total consumption or brand switching.

A more plausible incentive for the industry might be the threat of regulation by the federal government. It could be argued that the upswell of consumers' indignation, as a reaction to the private and social costs of alcohol abuse, is infantile, that it is a mounting force which has rapidly effected state legislation on drunk driving and will likely successfully evoke federal regulation of advertising and/or other activities of the alcohol beverage industry. While critics may counter that the conservative Reagan administration won't support such regulations, his conservative religious constituents, with strong convictions toward alcohol, may have sufficient power to force their passage.

Though possibilities exist for government regulation of the alcohol beverage industry's advertising and activities, such regulatons are likely to be mild if effected at all. However, these alternatives are worth contemplating as the benefit/cost ratios for self-regulation by business are likely to be less than one. I advocate refining the thinking on this issue and developing an approach that is not only protective of consumers but also effective and efficient.

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CONSUMERS' PERCEPTIONS OF AMBULATORY SURGERY

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SUMMARY

The use of ambulatory surgery is a partial solution to soaring health care costs. Ambulatory surgery is defined as scheduled surgical procedures provided to patients who do not remain overnight in the hospital (1). Many surgical procedures that were formerly performed in hospitals with two or more day stays are now being performed as outpatient surgery. For example, in 1984, 90 percent of the cataract surgery in Baton Rouge, Louisiana were performed as inpatient surgery. Since January of 1985, 80 percent of the cataract surgery have been done as ambulatory or outpatient surgery. The choice for ambulatory surgery is relatively new to many consumers. Insurance coverage for surgery performed in ambulatory facilities is becoming more common.

This study was designed to determine consumers' perceptions of ambulatory surgery. In addition, the study compared perceptions of ambulatory surgery between consumers who have experienced ambulatory surgery and those who have not. Data were collected in 1983 in an urban parish (county) in south Louisiana. A questionnaire was mailed to 200 consumers who were randomly selected from the telephone directory. The questionnaire was also sent to an equal number of consumers who had recently experienced ambulatory surgery at a local free standing surgical care facility. The sample size consisted of 133 consumers (90 consumers who had experienced ambulatory surgery and 43 who had not). Caution must be used in generalizing from any study taken in isolation, especially when sample sizes are small.

Findings indicated that consumers were aware of the availability of ambulatory surgery. Findings further indicated that the majority of consumers preferred surgery as an outpatient. Of those who had not experienced ambulatory surgery, 66 percent preferred outpatient surgery if they were given a choice. Several reasons were given. Seventy percent perceived that they would be more comfortable at home; 41 percent stated that they preferred having their family near them; and 34 percent felt that outpatient surgery was less expensive.

Most consumers (93%) who had recently experienced surgery as an outpatient reported that they preferred outpatient surgery. Similar to those who had not had outpatient surgery, a major reason for their preference was comfort. Seventy nine percent felt more comfortable at home; 31 percent preferred having their families near; 16 percent felt the lower cost was a factor; and 11 percent stated that hospitals made them nervous. Those consumers (7%) preferring their next surgery as an inpatient reported that they felt more secure in a hospital and they thought that their recent outpatient surgery complications could have been handled better if they had been an inpatient.

In conclusion, consumers in this sample exhibited a willingness to accept ambulatory surgery. As expected, those sampled who had experienced ambulatory surgery were more likely to prefer ambulatory surgery than those who had not. Comfort was the most prevalent reason for preferring outpatient surgery. Health care consumer education may heighten consumers' awareness of the use of ambulatory surgery as a way of bringing about cost-effective health care. It is recommended that future studies focus not only on consumer acceptance but also third party payer and physician acceptance of ambulatory surgery facilities.

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FINANCIAL MANAGEMENT PRACTICES OF REMARRIED FAMILIES

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ABSTRACT

Remarried families constitute a rapidly growing segment of the population. Children and money are their most challenging problems. This pilot study investigated the financial management problems of remarried families and offers recommendations for consumer educators.

The high divorce rate of the past two decades has spawned an upsurge in the number of remarried families, estimated at 9.2 million in 1980 [1, p. 25]. The remarried family suffers from a lack of institutionalized guidelines for dealing with complex relationships.

REVIEW OF LITERATURE

Messinger [3] found that financial complications were frequently related to ties to a previous marriage. Messinger concluded that the financial area was a "poorly resolved and sensitive one for many, reflecting hesitation in making a commitment to a new marriage" [p. 197].

Fishman [2] described two strategies for allocating family financial resources. A "common pot" approach is similar to the nuclear family model of pooling financial resources. In the "two pot" system each spouse contributes to household expenses but retains control of their own financial resources.

PROBLEMS AND OBJECTIVES

The problem of this study was to identify successful models of financial management among remarried families and to identify common financial management problems. The specific objectives were:

1. to describe the financial management practices of remarried families,
2. to identify financial management problems of remarriage,
3. to compare financial management practices in remarriage to the previous marriage, and
4. to determine the degree of interest in attending workshops and a support group for remarried families.

METHODS

Data were collected via telephone interviews with a convenience sample of 22 remarried couples in northern Utah. The questionnaire consisted of 140 questions on financial management attitudes and practices.

RESULTS

Of the 22 couples, 16 consisted of two previously divorced persons; it was a first marriage for 6 husbands. Most participants were 25-44 years old with the majority of family incomes ranging from $10,000 to $40,000. The number of children living at home ranged from none to seven.

Financial stress contributed to the termination of the first marriage for over half of the participants. Despite the financial problems in the first marriage, very few reported discussing money with their spouse before remarriage.

None of the families used a "two-pot" system described by Fishman [2]. Compared to their first marriages, they were more likely to share financial decision making and to have specific financial goals. Joint decision making, open communication, planning behavior and the use of a budget, along with trust and respect for each other, were strategies they would recommend to others contemplating remarriage.

RECOMMENDATIONS

Consumer educators need to be aware of the challenges facing this growing segment of the population: allocating family resources, asset ownership, and balancing financial demands from more than one family.

Recently remarried couples or those contemplating remarriage could benefit from workshops designed to help them explore their values, goals and money management styles.

Consumer educators could offer workshops in preparation for the financial challenges of remarriage. More research is needed to guide educators and counselors who serve remarried families.

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MARITAL PROPERTY REFORM LEGISLATION

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Most people think of marriage as primarily a social and emotional commitment. At the time of marriage they may be only vaguely aware of the significant legal relationship and contract that they are entering. The terms of the contract are set by the state and govern the economic rights of the spouses during the marriage as well as the property rights when the marriage ends with death or divorce. Recently, the State of Wisconsin has focused attention on the state's role in marital economics through the debate over various proposals for "marital property reform" and the eventual passage of comprehensivelegislation which will change Wisconsin from a separate property system to one similar to community property.

The present common law (separate property) system in Wisconsin is similar to that in 41 other states. These are basically systems of individual ownership of property wherein income earned by one spouse remains the property of that spouse and any property purchased with that income remains the property of the earning spouse. Property brought to the marriage by either spouse remains the property of that spouse within the marriage. Though this may appear gender neutral, in actual practice it is generally the husband who works outside the home for more years and at higher income--the result has been that he owns and controls most of the property in the marriage. The rules of common law seem inconsistent with the modern belief that marriage is a partnership between equal persons, both of whom contribute to the accumulation of property during the marriage whether in the form of income or services (or both) and therefore have the right to make decisions and act on behalf of the partnership.

In contrast to the common law property system, eight states have historically operated under a system of community property ownership: Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington. In these states, the husband and wife are viewed as an economic unit; they share equally in assets acquired during the marriage, regardless of which spouse's earnings were used to purchase them.

Wisconsin passed its version of community property in 1984 and is scheduled to implement the legislation on January 1, 1986. The Wisconsin Marital Property Reform is similar to the Uniform Marital Property Act (UMPA was adopted by the National Commissioners on Uniform State Laws in 1983). The Uniform Act is being considered in over a dozen common law states including Connecticut, Illinois, Indiana, Kansas, Michigan, Minnesota and New York. Wisconsin, after ten years of review and study of various alternatives, is the first state to adopt a version of UMPA.

The Wisconsin Marital Property Act, based on the assumption of equal sharing, establishes several new classifications of property ownership: marital property, individual property, mixed property, deferred marital property and survivorship marital property. Basically, marital property will consist of property acquired during marriage, except for gifts and inheritances which will remain individual property. Mixing marital and individual property produces mixed property which will be reclassified as marital unless the individual component can be traced. Deferred marital property is that which was acquired by spouses prior to the effective date of the law which would have been marital had the law been in effect. This property will be treated as individual during the owner's lifetime but will be treated as if it were marital at his/her death. Another type of property provided for under the Act is survivorship marital property,which operates like joint tenancy. At the death of the first spouse, it will pass directly to the surviving spouse, regardless of provisions of a will and outside of the probate process.

Spouses are required to act in good faith with respect to the interest of the other spouse in marital and individual property. Management and control rights depend on documents of title but these rights do not determine ownership. In making evaluations of creditworthiness of a spouse, creditors are required to consider all the marital property of the couple. They will also need knowledge of any marital agreement which might change the general assumptions of property ownership. These agreements, in writing and signed by spouses, may be used to opt out or change provisions of the new law.

Extension faculty and staff have been instrumental in educating Wisconsin residents about property reform issues and legislative proposals. Efforts have been directed at understanding the present system as well as evaluating various proposals that address inequities. In addition to regular teaching and delivery methods, computer mail has been effective in keeping staff informed about amendments and progress of the reform. Teleconferencing with specialists and legislators has been effective in enhancing communication between policy makers and citizens. These educational efforts and evaluation of the reform will continue as implementation of the marital property law is accomplished. Whether or not the law results in improved access and use of credit by nonwage earning spouses, use of the right to will property by these spouses, and improved self-concept on the part of homemakers will be investigated in further research.

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HEALTH MAINTENANCE ORGANIZATIONS AND CONSUMER EDUCATION

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The concept of health care has many facets and is an area in which consumer educators can be an important source of information. Rising health care costs have become one of the major problems facing Americans today. Consumer educators can work towards increasing the level of understanding about the various dimensions of health care issues so that people can make wise decisions.

Of the alternative types of health care finance and delivery systems available, health maintenance organizations (HMOs) are expanding the most rapidly. HMOs are programs for providing comprehensive health care for members and their families at a fixed prepaid premium. HMOs provide both health insurance and health services through one organization and combine the functions of payment and provision of health care services into a single program.

Because of the unfamiliarity with prepaid health care plans and the recent upsurge in availability, Wisconsin residents had many questions regarding HMOs. Consumers voiced concerns regarding the quality of health care, access to specialists, consumer complaint handling procedures, and the like. The only available consumer materials were promotional brochures from individual companies and specific HMO informational literature from the State, County and/or City employers. This lack of nonpromotional information prompted three University of Wisconsin-Madison home economists to develop health maintenance organization educational materials. Preparation of these materials was a preliminary step in the consumer education process.

Health care professionals, consumers, state government insurance commission staff, health planning council representatives, and consumer advocates served on an advisory council for the project. This group provided a broad perspective concerning critical health care finance and delivery system problems facing Wisconsin citizens. In addition to the advisory council, physicians, a state medical society executive, state health and social service staff and individuals working with senior citizens were consulted in preparation of the materials.

The Wisconsin project staff analyzed the health care issues before developing and producing appropriate materials to be used in consumer education. The initial steps taken were to:

- Select and define the specific issue: Health care cost containment.
- Identify the interested parties: Wisconsin consumers faced with the decision concerning alternative health care finance and delivery systems.
- Gather perspectives:
    1. Clarify the various health care finance and delivery systems available to Wisconsin consumers.
    2. Identify information needed by consumers to make a rational decision in the selection of a health care finance and delivery system.

After identifying the specific issue and target audience, a packet of educational materials was developed for the "average" Wisconsin consumer. A guide to HMOs with an extensive glossary, a list of HMOs in Wisconsin, a buyer's checklist of questions to ask before joining an HMO and what to do if a customer is dissatisfied with the HMO are included in the set of materials being distributed through the Extension network.

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STUDY EXAMINES ELDERLY SUPERMARKET SHOPPING

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Senior citizens' problems in the supermarket today are not remarkably different than the problems most people have in supermarkets. Seniors' special combination of physical handicaps and lack of consumer knowledge have magnified concerns, but results of a recently completed study showed that the magnitude of the physical problems are not nearly as great as commonly thought.

This was a conclusion drawn at the completion of "A Study of Senior Citizens in the Supermarket," a joint research project between the School of Family Resources and Consumer Sciences, University of Wisconsin-Madison and University of Wisconsin Extension, Waukesha County. The study was funded through a Wisconsin Area 2-B Agency on Aging grant.

The study was done in three phases: the development and piloting of a store inventory of problems with Elderreach volunteers in Waukesha County; a mailed store inventory sent to approximately 140 over 55 shoppers; and finally an in-store survey of 100 senior shoppers in a full service supermarket chain.

Food shopping habits of the seniors were explored in Phase II (mailed store inventory) of the project. It was found that 44 percent of the seniors shopped on Thursday and Friday with 53 percent of all shoppers shopping between 10:00-12:00 a.m. and 2:00-4:00 p.m. Eighty-two percent of the seniors drove themselves to the grocery store. The most common handicap or disability indicated was arthritis.

Most of the seniors used a shopping list and checked the grocery ads prior to shopping. One-half of them shopped once a week and 31 percent shopped two or three times a week. Routinely shopping in more than one store was done by 60 percent of the sample. Sixty-nine percent of them also kept track of prices as they shopped.

What were some of the more common problems identified by seniors in both the mailed inventory and in-store survey?

In the area of store convenience, limited sheltered waiting areas, difficulty in separating shopping carts, and lack of rest room accessibility headed the problem list. Seniors also indicated they had difficulty steering the shopping carts around aisle clutter.

Physical problems were exemplified by trouble in reading price information because the price markings were too dull or price labels were too small. Samples of several cash register tapes were presented on the in-store display. The inventory type tape which clearly explained everything and was easy to read was preferred by 92 percent of the seniors.

Plastic produce bags ranked high in the physical problem area. Many seniors had difficulty opening the currently used thin plastic produce bags. Although they preferred the heavier produce bag displayed as part of the in-store survey, seniors did not want a change made in produce bags if it would increase the food's cost.

The location and selection of single serving cans, lack of single servings of meat, deli and other prepackaged items were noted as merchandising problems. Also mentioned as sources of irritation were the switching of merchandise location in the store and redeeming the check cashing token.

Two areas for educational opportunities with seniors stand out as a result of the project. At least among this sample, seniors are clearly brand loyalists with 78 percent of them buying by brand name.

The second area relates to unit pricing. Responses to both the mailed store inventory and in-store survey indicated lack of understanding or use of unit pricing. Forty percent of the seniors in the in-store survey said they were not familiar with unit pricing. Both groups responded that unit pricing was confusing and not always accurate. It appeared that there is a lack of understanding about the relationship of unit pricing to the cash register price.

Upon completion of the study, both a technical and summary report were prepared. Recommendations were made by the researchers for ways to improve the grocery shopping experience for both seniors and supermarkets. Results of the study and recommendations have been shared with the store chain who cooperated with the in-store survey. The brochure developed has been used in teaching at senior nutrition sites and senior citizen clubs.

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ECONOMIC CONSEQUENCES OF HOUSEHOLD PRODUCED GOODS AND SERVICES

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ABSTRACT

Based upon the analysis of 1,235 questionnaires, Massachusetts Extension clientele are earning $38,812,800 from home-produced goods and services. Estimates of time spent on household-produced goods and services were provided by 940 participants, while an additional 295 kept a week's diary in addition to providing the estimate. Although the respondents were also asked to record the number of hours per week they spent on producing household goods and services for their family and for barter as well as for pay, the surprise was the extent to which people are earning money from household-produced goods and services.

OUTCOME

Because of the results of this study, Massachusetts Cooperative Extension Service home economists have:

- sponsored a statewide conference, "Sewing as a Business" where the 350 participants reported income of $1,680,000 a year.
- received inservice education on home economics home-based business including bed and breakfast, day care, catering, sewing, cleaning business as well as technical expertise from the Internal Revenue Service, insurance, health and labor departments.
- planned to train 75 master teachers in home-based business who will contract to volunteer 100 hours each to teach clients about home economics home-based businesses under the supervision of the county extension home economist.
- cooperated on an Agricultural Experiment Station grant (Hatch Funds) to conduct an educational needs assessment in two Massachusetts counties with people presently involved in home-based business.
- helped to initiate a course on home-based business for academic credit--undergraduate and graduate.
- planned to measure the effectiveness of the home-based business volunteer master teachers program as perceived by the county extension home economist, the master teacher, and the client.
- plans to attend a National USDA Extension workshop on home-based business, May 1985.

In Massachusetts, the three components of the land grant university--cooperative extension service, research, and resident instruction--are cooperating on this new direction of home-based business.

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MULTINATIONAL CORPORATIONS AND CONSUMER POLICY

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ABSTRACT

Multinationals are a developing group, which although they have existed for some sixty years are of rapidly increasing importance in the world economy. However, their growth is so fast that most studies are essentially empirical.

1. Whilst many of the Multinationals are based in the USA and the UK, they are also found in Italy, Sweden, Switzerland and Germany and extend their activities into the Third World and Australasia.

However, more recently we have seen Multinationals from Japan, in Electronics, the Motor Industry and contracting. Finally, new groups based in India and Brazil are now extant.

This presentation upon a study of some 60 Corporations, principally based in the USA and the UK and also including for comparison three state-owned corporations.

2. Since these corporations are very big, they may present a threat to consumer choice, for example, Boeing dominates Civil Aviation, IBM computers and ICI Beta-blocker heart drugs. They are sufficiently important to be part of public policy nationally and internationally so that any consumer view can be totally overwhelmed. In each of these areas smaller groups exist, but market dominance is achieved by the Multinationals.

3. In some cases the product may be Global. This type of product is sold in a nearly identical form with an established marketing method intended not to differentiate between markets, "Coke" and the "Big Mac" have achieved this, although there are wide price differences for the seemingly identical product. The impact may be partially cultural, 'Coca-colonisation'.

4. The sample used was restricted to those with an annual turnover of more than $ billion. Some were nearly $ billion 100 which places them in the range of large national States, Exxon is about two-thirds the GNP of Holland and Phillips, a Dutch-based Multinational accounts for a Turnover one-ninth of the GNP of Holland. The need for resources for Technological development means that size is essential and these Multinationals compete with States for resources and may be inter-dependent.

5. Ownership can be partially traced in the reports of the UK Multinationals and is dominated by the Institutions, the Insurance Corporations and the Pension Funds. People represent only some 25% of shareholders, so that the ordinary man has his interest through the Investment Manager of his Fund.

The effect of this is to ensure that the Multinationals are profit oriented, since the duty of shareholders is to generate sufficient funding to meet their contracts.

6. The reporting of the companies is certified by Independent accountants or Auditors and these too are a small select group, multinational in style and the largest are approaching the $ billion level in annual income. There has been in recent years some questoning of the efficacy of the work of Auditors.

7. These corporations are all subject to local regulation, which may be financial, or technical and will vary between areas of operation.

In the Third World it is widely believed that the corporations are exploitative and the levels of profit seem to support this. Especially since the Multinationals have the capacity to direct their operations centrally and particular concern has been expressed at the surplus on Pharmaceuticals which is up to 30% of turnover.

8. The UN is seeking to develop Guidelines on Multinational behaviour and it would appear that International co-operation is needed.

SECONDHAND CLOTHING MARKET: IMPLICATIONS FOR CONSUMERS

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ABSTRACT

The secondhand clothing market is expanding because it offers desirable clothing, often at low prices, and because it provides avenues for earning money. With expansion, the market increasingly resembles new ready-to-wear retailing. Yet, it retains unique characteristics with both advantages and disadvantages for consumers.

Economic conditions in the 1970s and '80s led many consumers to seek ways to meet needs at lower cost and to become more self-reliant [5]. The secondhand clothing market expanded because it offers desirable clothing, often at low prices; one can also earn money by supplying garments to the market [2, 3]. The secondhand market increasingly attracts the middle class and operates like new ready-to-wear retailing [1]. Yet, it retains unique features that have implications for consumers. This poster presentation focused on these implications.

BENEFITS OF THE MARKET

Prices are usually well below current retail. Most goods are priced 50-90 percent below their original prices, but vintage/antique apparel can far exceed its original value. Haggling is common, especially in less formal sectors, allowing skilled, knowledgeable buyers to bargain prices down.

Secondhand merchandise is a collection of one-of-a-kind articles resulting from inherent randomness in the supply system, which depends on consumer product disposition processes [4]. The garments, which range from current styles through antiques, provide consumers with "originals," singular styles, perhaps higher quality than in new apparel, and natural fibers more likely found in the old.

Consumers may view the casual, sometimes disorderly atmosphere at many stores and sales to be recreational or even a stimulating challenge.

FAULTS OF THE MARKET

Information problems exist in the market. The first centers on finding obscure, ephemeral sellers who locate in out-of-the-way places, move or sell sporadically, or advertise inconspicuously. Finding them may require checking want ads, roadsigns, or yellow pages, obtaining a shopping guide, and consulting fellow shoppers.

Secondhand sellers are not bound by required or accepted labeling practices of retailers of new clothing; missing or inaccurate labels may result. For garment sizing, this can be troublesome if there are no dressing rooms or if garment sections are stapled together to deter theft. Shoppers may have to bring measuring tapes or hand mirrors and try on clothing in the aisles.

One-of-a-kind merchandise limits size selection and garment coordination. Also, unique items at low prices are conducive to buyer addiction and impulse buying [6].

The market presents certain risks, some of which arise from informational weaknesses and the propensity for buying beyond need. In addition, one cannot expect that current safety standards are met, nor that clothing is clean. Purchase mistakes may be irremediable due to no-return, no-exchange policies [3, 6].

Secondhand shopping can involve exorbitant time costs. Locating a seller, sorting a hodgepodge of garments, and possibly renovating a purchased item can all increase the time spent. Stores that seek middle class customers are understandably adopting more convenient modes of operation.

CONCLUSION

This presentation sought to increase consumer educators' understanding of advantages and disadvantages of shopping and buying in the secondhand clothing market. Enhancing our knowledge enables us to help our customer clientele make best use of this expanding market.

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WORKING WIVES NET INCOME CONTRIBUTION TO THE HOUSEHOLD

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ABSTRACT

The net monetary contribution of married working wives to the household is analyzed in this study. The analysis applies a detailed cost-benefit model to the income generated by the wife, providing a decision making basis both for individual households and for social policy. Average net income, as a percentage of salary, accounted for by the working wife was 38 percent, but ranged from 52 percent to 10 percent dependent upon spouse's earnings, number of children, and work-related costs.

INTRODUCTION

This study analyzes the net monetary contribution of married women to household disposable personal income. Women's labor force participation decision and women's labor supply have been subjects of considerable household economic theory. Recent analysis has placed increasing emphasis on the impact of public policy, specifically the federal tax structure, on women's decision to enter the labor force. Net income, rather than earnings, has been found to be the crucial determinant.

METHODOLOGY

The analysis applies a computerized model titled "Second Earner Net Income Model"(SENIM) developed by the authors. The net income, net income as a percent of salary, and net hourly rate of married working wives is analyzed for selected levels of spouse income and for family sizes of 2, 3, and 4. The multi-equation model simulates a detailed cost-benefit analysis of the income generated by the second earner and quantifiable implicit and fringe benefits of working minus the monetary and quantifiable costs of working. Median income of working wives provides the base data for the net income calculations plus five additional categories of earnings levels in $2,000 increments. For comparative purposes, the data generated utilize eight levels of spouse incomes,based on the median earnings of husbands, in $5,000 increments. The 1982 median earnings of wives was $12,792 and of husbands was $21,164.

The net income of the working wife is highly dependent upon the income of the husband due to the effects of the progressive income tax system. The income data generated utilizes the 1982 income tax schedule for married taxpayers filing joint returns using only standard deductions. Two important adjustments to the combined tax costs were allowed in the 1982 tax structure to help alleviate the so-called marriage-tax penalty; and both of these are included in the SENIM model. The first adjustment is the allowance of 5 percent deduction of the lower paid spouse's salary from the combined income, up to a maximum deduction of $1,500. The second adjustment involves the child care tax credit. As a tax credit, allowable child care credit is deducted dollar-for-dollar from taxes owed. Dual-earner households with incomes below $10,000 are eligible for a tax credit equal to 30 percent of child care expenses on a maximum of $2,400 per child. A maximum credit of $720 is allowed for one child and $1,440 for two children. The credit is reduced by one percent for each $2,000 of income above $10,000, allowing a credit of only 20 percent for households with income of $30,000 or above.

The highest cost of earning a second income is the cost of taxes or child care, depending on the individual family situation. There are other monetary costs of earning the second income and these are divided into work-related costs and opportunity costs. Work-related costs include such major items as: Social Security Taxes, transportation, food at work, clothing for work, and expenses for dues, gifts, and contributions while at work. Major work-related costs for transportation were derived from the Bureau of Labor Statistics data (2, 4); child care costs from a national survey by Bane (1); and clothing costs from a nation-wide marketing survey by the Celanese Fibers Company (5). The average cost of child care at day care facilities for one child is $2,028 and for two $3,955 (1). Other costs ranged from a total of $3,000 to $3,600 depending on the percent of earnings contributed to the Social Security System.

Data analysis revealed that the average net income, as a percentage of salary, accounted for by full-time working wives was 37 percent. The most significant effect on the wife's net earnings is the spouse's annual income. The larger the spouse's income, the smaller the wife's net income, declining in each case with no children from an average of 52 percent with spouse income of $15,000 to less than 33 percent with spouse income of $45,000. With one child in day care, the percents of household income accounted for by the wife, at those income levels are 39.5 and 19.8 percent, and with two children in day care, 28 and 9.5 percent. Thus, with two children in day care and a second income of less than $10,000, the monetary payoff for employment is negligible.

Utilization of the preliminary data generated provides married women with a first approximation in determining their own net income, and the development of the SENIM model further broadens the possibilities of such determination. The analysis also provides an approach and specific data for consideration of social policy issues of income taxes, child care, and work incentives.

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NATIONAL CONSUMER AFFAIRS
INTERNSHIP PROGRAM

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ABSTRACT

The National Consumer Affairs Internship Program places graduate students from American colleges and universities in corporate and government consumer affairs offices for a 13 week professional internship experience. Interns are reimbursed for this academic/experiential educational program. Approximately 40 to 50 interns are placed annually in three classes--Fall, Spring, and Summer.

The purpose of the National Consumer Affairs Internship Program is to provide graduate students at American colleges and universities an opportunity to supplement their academic training by working in the field in a consumer affairs office of a business, government agency, or non-profit association.

Applicants for National Consumer Affairs Internships are recruited nationally from institutions of higher education throughout the country. The Program is inter-disciplinary. An applicant must have completed all requirements for an undergraduate degree, have a career interest in consumer affairs, and be a candidate for an advanced degree.

Applicants must be nominated by a faculty member who agrees, in the event the applicant is appointed, to supervise the internship project. Interns receive graduate credit for the thirteen week period of work assignment on the internship project, and are awarded a grade based on the final internship project report.

National Consumer Affairs Interns receive stipends for their services for the thirteen weeks they are on work assignment with participating organizations. They are also paid a relocation allowance and are reimbursed for travel expenses from their place of residence to their place of work assignment, and from the place of work assignment to their residence.

Faculty advisors receive a stipend for arranging graduate credit for an intern, for academic supervision of the intern's project, and for awarding an intern a grade on completion of the internship.

The National Consumer Affairs Internship Program includes features common to successful internship programs in public administration, political science, and other social science disciplines, as well as features distinctive with the Internship Program.

Three internship classes are scheduled each year. The Spring Class starts in January and ends in April. The Summer Class starts in May and ends in August. The Fall Class starts in September and ends in December.

Internships

The concept of an internship project is formulated by the participating organization. Details of a weekly work program are developed through cooperation among the agency supervisor, the intern, and the faculty advisor, with the approval of the Program Director. The internship project must be of such a nature as to qualify for graduate level college credit. The project requiries active participation and work in the participating organization, with consideration given both to the needs of the organization and the interests and qualifications of the intern. The internship project should make a significant contribution to the organization and to the intellectual growth of the intern.

Eligibility-Nomination-Application

Any student who has completed an undergraduate college degree at an accredited institution, who is a candidate for a graduate degree, and who has a career interest in consumer affairs is eligible to apply for participation in the National Consumer Affairs Internship Program. The Program is interdisciplinary and open to all majors.

Applicants must be nominated by a faculty member who is willing and able, in the event the applicant is selected for internship appointment, to arrange for internship graduate credit, serve as faculty advisor during the period of the internship, and award the intern a grade based on the internship project report.

Students nominated by a faculty member for a National Consumer Affairs Internship must complete the application and related requirements, be willing to accept an offer of an internship appointment, serve an internship appointment for a period of thirteen weeks and prepare a final report on an internship project.

In addition, to the application form to be completed by the faculty sponsor and the applicant, the application includes a letter of reference from the faculty member nominating the applicant, a brief essay by the applicant on how the internship would relate to the applicant's career plans, and a one-page resume. Copies of college transcripts and letters of reference from two other persons who can testify to the applicant's qualifications complete the application.

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Selection

When completed applications are received at the national office of the Internship Program, they are assembled and screened for eligibility. Eligible applicants are ranked by a selection committee and essential information about ranked applicants is reproduced to send to participating organizations.

When an organization indicates an interest in participating in the Internship Program, files of one to three ranked applicants are sent to a representative of the organization. The participating organization selects an applicant for appointment.

The student selected and the faculty advisor are immediately notified of the appointment. Arrangements then begin for the intern and the faculty advisor to participate in the Internship Program.

An internship class extends through a thirteen week period following a pre-internship. During this period the intern is engaged full time on a consumer affairs internship project.

Affiliations

The Internship Program is an affiliate member of the National Society for Internships and Experiential Education, Washington, D.C., and the American Council of Consumer Interests, and an Associate Member of the Society for Consumer Affairs Professionals (SOCAP), Washington, D.C.

Funding-Compensation

The National Consumer Affairs Internship Program is funded by contracts between the Program and participating organizations. The contract amount is $3,500 per internship. There is no additional cost to an organization. Compensation for interns and faculty advisors and travel expenses as well as administrative expenses are covered by the contract amount.

An intern receives a $200 relocation allowance and is compensated $125 a week for the thirteen weeks of work assignment on an internship project. The intern is compensated for travel expenses from the place of residence to the place of work assignment, and from the place of work assignment back to the place of residence.

Interns are not employees of the participating organization. The intern stipend is similar to a graduate fellowship or scholarship paid directly to the intern by the Internship Program.

A faculty advisor receives, on completion of the final internship project report, an honorarium of $200 for services rendered in the Internship Program.

Program Administration

The National Consumer Affairs Internship Program is an integral component of the Center for Consumer Services at Oklahoma State University. With the administrative leadership of the Center, it continues to be conducted with the same philosophy, policies and procedures which were instituted and so ably implemented by its former director, Dr. Currin Shields. The Internship Program has the resources and support of the Center for Consumer Services, the Department of Housing, Interior Design and Consumer Studies, the University Extension Program, and the College of Home Economics at Oklahoma State University. The director of the Center for Consumer Services serves as director of the National Consumer Affairs Internship Program.

WATER AS A COMMON PROPERTY RESOURCE ISSUE

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ABSTRACT

The quantity and quality of water in groundwater aquifers is becoming an issue. Consumers and policy decisionmakers need to be aware of the conditions that contribute to destruction of the resource. Aquifers that meet the necessary conditions of a common property resource experience overuse that results in reduced quantity, and oftentimes, through infiltration by pollutants, reduced quality of this type of resource. This paper addresses: 1) conditions that must be present for an aquifer to qualify as a common property resource and 2) management alternatives that can be instituted to compensate for the naturally occurring conditions that promote destruction of the common property resource aquifer.

A common property resource is one where many users have access, but no one user has control to limit use of the resource by others. Therefore, any one user can have adverse effects upon the interests of other users. The procedures for obtaining water rights are established by each state. Where there is no agency with the power to coordinate or control use, action which is individually rational becomes collectively disasterous. This can result in depletion of a common property resource. An aquifer can be a common property resource. The necessary conditions of a common property resource are [1]:

1. Ownership of the resource is held in common.
2. A large number of users have independent rights to the use of the resource.
3. No one user can control the activities of other users, or conversely, voluntary agreement or willing consent of every user is required in joint action involving the community users.
4. Total use or demand upon the resource exceeds the supply.

The risk of overuse of a common property resource means that over-pumping may exceed the safe yield, cause salt intrusion, and, for all practical purposes, destroy the resource. Additionally, each user's withdrawal from the common property resource can add to the other users' costs by lowering the aquifer in that area. As with other resources with public goods characteristics, an individual has an incentive to understate one's own demand in hopes of reducing one's share of the cost.

There are a variety of alternative institutional arrangements for efficiently managing common property resources without destroying them. Alternatives for public versus private ownership and management of the common property resource are the issue.

Management Alternatives:
Private ownership

1. A number of individuals with voluntary agreements or willing consent, therefore, acting as a monopoly.
2. One owner or corporate organization, therefore, a single decision maker.

Public ownership

1. Property rights assigned.
2. Property rights given away.
3. A price set for the property right which is then sold.

An individual may privately own and manage a resource and receive rent from others for its use. The rent pays for his or her time in the managerial function. If the political establishment decides the private owner has no rights to the rent, the profits may be taxed away with no effect on the allocation or use of the common property resource. But, the private owner may sell the common property resource to those willing to pay the market price and then exclude those unwilling to pay in order to maximize his or her return.

In the case of common property resources, public ownership and management does not mean free and unlimited use for all, as this leads to depletion of the resource. Public ownership and management means that some political official, hopefully with citizen input, is going to decide by whom, how, and how much a resource is used; in other words, they are going to assign property rights. Public management may choose to forego any rent or profit and give the common property resource away; i.e., assigning the common property resource right along with title to the land. The common property resource rights may be sold through bids for licenses by auction to the highest bidder, therefore producing a high rent on a property resource fixed in supply. The rent may go to the general public treasury or be paid to former users as rewards for past conservation practices.

Solutions to common property resource management will vary with institutional arrangements, with boundaries of public agencies, with types of coercive measures developed, and with the individual's degree of freedom to enter into public and/or private ownership.

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THE GREAT SOUTHWESTERN BELL CAPER

Carol Barger, Consumers Union Southwest Regional Office[1]

You have asked me to talk to you about the Southwestern Bell Telephone case which Consumers Union undertook to challenge last year. I would like to share with you some of the principles or elements that we feel contributed to our success. I think the major reason that we were successful in challenging Bell's request for 1.7 billion dollars, which would have resulted in tripled rates for Texas consumers, is that we focused on the form of what Southwestern Bell was doing as well as the content of their request to raise rates. What were they trying to convey to the public and to the public utility commission; what was the nature of their message?

We also tried to take a dispassionate view in our approach. It's a concept with which you are very familiar but a lot of times those of us who are advocates, and who are immersed in the issue and in the trenches, tend to forget to be dispassionate. So why were we successful in holding Bell to $8.36 instead of the $21 a month increase they requested for Texas consumers?

The first principle that governed our approach and contributed to our success was that we knew our subject. We had been involved in fighting Southwestern Bell for a number of years and in a number of cases, so we had a lot of background on the subject matter. We had studied it; we knew how the issues would be presented; we knew how the process worked at the public utility commission. We second of all took what I call a proactive position in contrast to a reactive position.

If you were given our assignment with an office of one lawyer and, at that time, one law clerk, and you were going to take on the largest company in the state, the largest revenue producer and the largest employer in the state, one with unlimited resources, e.g., $5 billion of invested capital, the challenge would tend to overwhelm you and you might not want to pursue it. You might feel that the task was bigger than you. That would be a reactive stand; reactive to all those resources Bell could put behind their effort to persuade. We tried not to become vulnerable to that kind of power. Instead, we tried to demystify what the company was doing. A major financial organization, particularly, has the ability because of the complex nature of what they do, to create a mystique about what they do and to make you think that you can't understand it. It's very important for an advocate to break that mystique down and it is much easier to do that from a proactive position than a reactive position.

Our proactive stance helped us to be more rational in our response to what Bell wanted. For example, the 1.7 billion-dollar increase that they filed in June of 1983 was right before the breakup order was to take affect. Naturally their strategy included using the breakup of AT&T and the Bell operating companies as a way to make people feel that this increase was going to be necessary for them in order to maintain a viable telecommunications system in a new era of divestiture. But we were able to sit back and say, "Wait a minute--there is nothing in the breakup of AT&T and the Bell operating companies that would suggest huge revenue needs, let alone in the neighborhood of 1.7 billion dollars." And, in fact, Judge Green, who wrote the breakup order, specifically addressed that issue and said there is nothing in the breakup that would dictate higher rates. We asked, "Is there anything in the economy, is there anything major that is happening in the telecommunications field, that would give strength to their argument?" There really wasn't.

The third principle that governed our Bell strategy was that of using a collective approach. We worked with a group of volunteer students. We had about 12 volunteer students who came from different departments from within the University of Texas, who were at different levels, some under-graduates, some graduates, and some in law school. I think the reason they joined with us was that they were captured by the challenge of this big case, the biggest ever in the state, at such an important time in the breakup. We held four sessions in which we spent 2 to 3 hours just analyzing and brainstorming why Bell was doing what they were doing and trying to look at the problem with all the brainpower the various participants in the group could muster. These sessions made an enormous difference to the quality of our analysis of the case in that they gave us a greater sense of confidence in our approach to Bell. The collective approach also helped us to build a power of people around the state. We tried to share what we learned with people around the state so that they might participate in a knowledgeable challenge to Bell. Certainly any major case is not won by an individual nearly as effectively as it is won by lots of folks participating and committing themselves to the challenge.

And the last element of our strategy was that we stayed focused on the bigger picture. Bell filed the rate case in June, 1983, and it was completed in May of 1984. The hearing itself lasted 3 months, so it would have been very easy during that time to get lost in a lot of individual skirmishes. We tried to stay focused throughout the case on what we thought was happening and on the belief that there wasn't anything in the breakup to mandate this change; the commission could hold the line on local rates. We also tried to always stay focused on what Bell was doing as they presented their message, and 30 witnesses, and untold documents.

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[1] Director

There were two major sources of persuasion that they used. One was the language. Bell and AT&T created a language surrounding divestiture as a way to create--in my opinion--a political climate that was favorable to their agenda, favorable to their goal. See if some of this doesn't sound familiar. "That AT&T and Bell operating companies really didn't have that much to do with it." "This was an order that came out of Washington." "We're not sure exactly why they did it and we really didn't have much to do with it." "However, if we don't get higher rates, the best phone system in the world is going to deteriorte and so we need to have higher rates in order to maintain the quality of telephone service." This language is very self-serving language and not necessarily true.

The second major kind of persuasion they used was numbers. They had lots of numbers. The 1.7 billion dollar breakup, the 1-billion-dollar-a-year construction program, the 5.5 billion dollars in invested capital; I mean they had numbers. And they were big numbers, overwhelming numbers. We had to accept that Bell was the creator of the numbers and would be the master of the numbers. And that if we played a numbers game, we were going to lose. We just recognized that part of their strategy was to continue to produce numbers as a way to overwhelm people.

In sum, we tried to stay focused on the bigger picture so we didn't lose our perspective because those numbers, those languages, could have gotten us off track. We found, I think, that we maintained perspective, and maintained our own momentum, by pursuing only the goals that we had set forth for ourselves and by choosing our tactics. It's so easy when you're involved in a case like that, and the opposition does something, to begin to react instead of keeping to your tactics, particularly when you don't have a lot of resources. In order to maximize your resources, you must be very selective in how you use them.

So I feel that those four points, those four principles were the things that governed us as we proceed to challenge Bell. (1) We knew our subject and did our homework. (2) We stayed proactive throughout the case instead of reactive. (3) We used the collective approach as a way to increase our thinking and our ability to pursue the challenge. (4) We stayed focused on the bigger picture throughout the case. And throughout we reminded ourselves that the form of what was happening was as important as the content.

I have to say a few things about pursuing form. As an advocate it is very hard to stand back and say, "Now this person is just using these numbers or this strategy to obtain this impact," rather than to say, "It's wrong." "That's incorrect," and "Let me tell you why it's incorrect." There is some risk associated, though, with fully pursuing the form and understanding the form, and that is that you must put yourself in the other person's shoes. You must try to stand back and look at what the world looks like from Bell's position as they put forth their case, to really get into why they are presenting their case that way. The risk is, that you can go through this difficult process, quite difficult for advocates whose passion drives them, and you could lose.

There's also the risk that you could take this approach and find out that you were wrong; that, in fact, you hadn't thought the problem all the way through. But I think it is important to take the risk. I think it is important strategically because by putting yourself in your opponent's shoes you will be stronger strategically. This approach is also more ethical because you do understand what the other side's position is and so you're not misrepresenting it, not misstating it. And lastly, this approach helps keep you from becoming dogmatic. It's so easy for an advocate to be dogmatic. You can work to not be dogmatic by really having a philosophical understanding with regard to what the other side is about. I think this approach helps your ability to persuade because you're able to step back and to know what the opposition's position is and to feel very confident about your own. So I would urge you to take the risk, to put yourself in the other person's shoes, and to be creative in your approach to understanding the form of any message that you're exposed to, as well as the content.

I want to thank you in the academic world and let you know that I appreciate your contribution to the advocacy role in helping us to realize the importance of that dispassionate view, of that standing back and being analytical before we step back into the shoes of being an advocate and get out there in the trenches on an issue.

And lastly, I would like to urge you to use the analysis of form versus content as you address more complex issues. I think that one of the great challenges for advocates today is that efforts at persuading people, whether it be to buy a product or adopt a political position, are going to become more and more sophisticated. As the strategies of persuasion become more complex, it will be more difficult to understand the level of persuasiveness to which you are exposed. Thus, it will serve you well to look at the form of messages to which you are being exposed as well as their content.

SO YOU'VE BEEN ASKED TO TESTIFY: WHAT TO EXPECT AND HOW TO PREPARE

Carolyn Summers-Edwards, The Center for Forensic Economic Studies, Washington D.C.[1]

Serving as an expert witness in a legal proceeding is an opportunity to apply your skills as a researcher and an educator in a new setting and to obtain the satisfaction of providing your expertise where it can make an important contribution. Following are some ideas to consider that may be helpful as you prepare. The lists include things to keep in mind and what you might expect regarding:

1. pretrial roles you might play
2. presenting yourself at trial
3. direct examination
4. cross examination

Remember that the nature of each case and the way that your substantive expertise fits into the case are most important in determining exactly how things will proceed. You should be sure to get thorough instruction from the attorney for whom you are working. What you can expect will vary, too, depending on such factors as the jurisdiction of the case, the experience and style of the attorney, your experience and style, whether you're serving as an expert in the liability or damages portion of the case, and whether your're serving the plaintiff or defense portion of the case.

Above all else, remember that you're there to assist the attorneys, judge, and jury in understanding the scientific and technical aspects of the case that are beyond the experience of the layman. It is of utmost importance that you present an appearance, demeanor, and attitude of CREDIBILITY.

Pretrial Roles You Might Play

Following are some of the possible roles you might play as an expert prior to trial:

1. You may aid the attorney in deciding if a case has merit.

2. You can educate the attorney on the technical details of the case.

3. You may help formulate theories of recovery or defense and anticipate theories likely to be advanced by the opposition.

4. As the discovery process advances, you may help formulate and answer interrogatories, identify documents and information needed, evaluate information that is received, and assess what the opposition might be considering based on their strategies.

5. You may perform tests, examinations and studies, and provide reports. It will be up to the attorney to direct you regarding how such information should be provided in your documents.

   Reports are a ready source of reference for the attorney that has hired you. They provide a useful summary of what you've done and aid counsel in structuring direct and cross examination. In addition, they are very helpful for the expert. Sometimes a great deal of time passes between the time you develop your opinion and the time that it is needed in court. It is very important that you document what you have done for your own reminder. In some jurisdictions, an expert's reports are discoverable by the other side. If the information in the report is unfavorable or incomplete it can present problems on cross examination. Reports also may reveal more than is desirable too early on. Therefore, you may or may not be asked to write a report that provides all the detail of your consideration. Counsel should be precise in informing you of the issues upon which he or she wants you to formulate an opinion and how he or she wants it documented.

6. You may help the attorney prepare for trial.

7. You may assist in settlement. You may help the attorney establish his or her perception of their bargaining position.

Presenting Yourself At Trial

1. Remember the goal of being credible! You need to be perceived as honest, candid, cooperative, and dignified by the judge, attorneys, and jury. Do you look and sound the part? Do you project an image of competence?

2. It is important to adjust your language and deameanor to different levels of sophistication of your audience. It is vital that you can communicate your work effectively, that you don't talk over the heads of the members of the jury, and that you seem to genuinely care that your audience understands and appreciates what you are trying to convey. Maintain eye contact with the judge and/or jury and try to determine if they are following you.

3. Skill and effectiveness with demonstrative evidence such as charts and transparencies are very helpful and can set you at ease as well.

4. It is important that you appear at ease in the courtroom environment. You don't want to appear nervous. You need to think quickly and accurately under pressure, so it helps to

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[1] Senior Economist and Director

understand the language and procedures of trial. You want to make a smooth and comfortable presentation, so find out what you feel you might want to know in advance.

5. You don't want to be too much at ease though! Remember to show respect for the court and the gravity of the proceedings at all times. Remain serious on and off the stand. Stand upright when taking the oath, speak up when you talk, and listen carefully.

6. You are an advocate of your position, and you are representing one side, but remain independent.

7. Before you can testify, the attorney that hired you will conduct a voir dire to demonstrate your qualifications. Then the opposing attorney will have an opportunity to demonstrate that you are not qualified, or at least to diminish your qualifications. Be prepared to present, with confidence but modesty, the kinds of information that are on your vitae. The attorney for whom you are working will advise you on his or her approach. Remember that the goal here and throughout is to appear credible to the jury. You want them to believe you! Depending on your qualifications and importance to the case, the attorneys on each side will approach voir dire with varying strategies.

Direct Examination

1. Testifying in court is quite different than the environment you might be accustomed to doing your reserach and teaching. You have to have an answer right then and there, and it has to be the one you're willing to live with. You have very little time to compose your answer.

2. Be prepared. Know what you're talking about. Know what you did and why you did it, but also know what you didn't do (or what you might have done) and why you didn't do it. Be aware of relevant literature, procedures, and approaches.

3. You may be asked to present your study results as a narrative with comparatively little interruption by counsel or you may be expected to describe your work in response to a series of very structured questions. The former approach is more spontaneous, allows the personality of the expert to come across, and provides the expert the opportunity to take the role of a teacher. Juries are likely to respond more favorably to a teacher taking the time and effort to explain his or her ideas than to a "hired gun" expert. Acting as a teacher also provides you the opportunity to get down off the stand, to get close to the jury, and to use visual devices. If you're comfortable with this approach, you're likely to come across very well. The jury sees you more as a person and provides an opportunity for you to develop rapport. If you're likely to be very nervous or unsure of yourself however, it may be better for the attorney to have more control of the situation by asking you a series of questions. You need to work this out between you and the attorney in advance.

4. Keep your presentation simple. This is not the time nor place to demonstrate esoteric knowledge. Be succinct, explain things thoroughly, and remember that the simplest of concepts gets very complex.

5. You need to establish a balance between being correct, sure of yourself and assertive, and being "too much" of an authority. Explain enough, but avoid talking too much. Try to be simple and concise yet thorough without hanging yourself with excessive certainty or detail.

Cross Examination

Remember that on cross examination, one of the goals of the opposing attorney is to diminsh your credibility. He or she wants to cast doubt in the minds of the members of the jury regarding what you have presented. Opposing counsel will constantly be looking for ways that you may be vulnerable.

Two types of cross examination are corroborating cross and discrediting cross. In corroborating cross, counsel will elicit favorable testimony from you to get you to agree with the facts that support their theory. The goal of discrediting cross is to get the jury to minimize or disregard you.

The strategy that will be used on cross examination will depend on the difficulty and importance of the case, your importance in the case, and the opposing attorney's level of desperation. The weaker his or her case, the more risks and the bolder strategies he or she will be willing to take.

1. Listen carefully to the questions. Remember that no matter how nice opposing counsel may seem, they are still trying to reduce your credibility. Be careful that you're not lulled into saying what a nice guy their client really must be.

2. Be polite at all times, even under the most intensive cross examination. This is no place for righteous indignation, no matter how justified! If you get testy, your credibility is reduced.

3. Don't say too much; don't offer too much.

4. Be consistent. You'll be surprised to hear what comes back to haunt you. If you use a very different procedure, assumption, or approach from what you've done in previous writing or testimony, be sure you can say why.

5. Explain where you can, but remember that there are techniques that are designed to prevent you from getting your ideas across. You can look very foolish if you're lead down a path of questioning and cut off before you can explain, so keep that in mind as you formulate your answers. Be careful of deceptively simple questions. You may be asked a series of "did you know" questions that are designed to make it look like you've overlooked something. Alternatively, you may be asked a series of "yes or no answer" questions that either leave you sounding like you support the opposing side (with a lot of "yes" answers) or leave you looking like you didn't think things through.

6. Sometimes it's best to disarm a line of questioning by simply agreeing rather than trying to defend or explain every detail. That way you come across as reasonable and willing to concede rather than overly defensive, unsure, or rigid.

7. In an attempt to make it appear that you have a lack of foundation for your opinion, that you have relied on the wrong fact, that you have relied on information that is irrelevant to the case, or to point out great improbabilities, opposing counsel will often use a "just a statistic" strategy when asking you about the data you used. It is essential that you know your data and why you used it, that you know the weaknesses in it, and that you know the implications of using it as opposed to other data. This is especially true when using benchmark or external data as a proxy for specific data about the case.

8. Anticipate what the other side is going to do. Play devil's advocate with your own work. Put yourself in their shoes. No one knows the strengths and weaknesses of your work better than you, but be careful that you're not so close to it that you don't see those strengths and weaknesses. Be prepared to show that you've been reasonable, conservative, and therefore credible. More importantly, be sure you are reasonable, conservative, and therefore credible.

A RE-EXAMINATION OF CONSUMER CREDIT GROWTH

David B. Eastwood and Cynthia Ann Sencindiver*

ABSTRACT

Consumer installment credit has grown rapidly since 1945, raising concerns about consumers becoming overextended. A model of credit growth which provides a long-run perspective is examined. This model generates a limiting debt-to-income ratio that is approached asymptotically. Actual debt-to-income ratios appear to conform with this theory, particularly when an allowance is made for the changing age distribution of the population.

Consumer installment debt has grown dramatically since World War II.[1] Outstanding debt in 1945 was $2.462 billion, and it had risen to $396.082 billion in 1983. The average annual rate of increase in debt outstanding for this period was 14.31 percent. Not only has the level of consumer installment debt grown rapidly, but it has grown at approximately twice the rate of either personal income or disposable income.[2] Personal income increased at an average annual rate of 7.59 percent, and disposable income at 7.49 percent. Most of the credit growth has been attributed to factors such as lending institutions becoming more effective in inducing consumers to borrow, consumers themselves experiencing changes in preferences toward consumption today, the emergence of credit cards, new consumer durables, and changes in credit terms.

Data, such as that presented above, have frequently led researchers and the popular press to express alarm regarding whether consumers are becoming debt-ridden. Their concerns can be grouped into four areas. One is the ability of consumers to repay existing loans. As the debt-to-income ratio rises, consumers would have more difficulty in meeting the repayments schedules, unless there is a comparable rise in income. Another closely related concern is the effect of the debt repayments on current consumption. Rising debt payments could lead to reduced current consumption, and thereby depress demand for goods and services. Third is the potential impact of increased borrowing on saving within the economy. The use of credit allows consumers to avoid the need to save to acquire the money to make a purchase in the marketplace, and the repayments usually take the place of subsequent saving. Consequently, the economy could experience lower saving, investment, and growth. Fourth, concern has been expressed regarding the impact of consumer credit on economic cycles. That is, the use of credit could be a cause of fluctuations in economic activity.

The objective of this paper is to re-examine post-World War II credit growth in order to gain a long-run perspective on whether consumers are becoming over burdened with debt. The analysis is based upon a model of consumer installment credit growth originally developed in the 1950s, and it is extended in two meaningful ways. One is to use disposable income in place of personal income to generate a limiting debt-to-income ratio. The other is to re-estimate the model including more recent data, so a longer time period is available to examine the relationships. Results of the re-analysis shed very interesting light on each of the four areas of concern.

Background

Rapid credit growth following World War II has prompted a series of in-depth analyses of all aspects of consumer credit. A summary of these studies through the early 1970s is found in [2]. These studies conclude that although consumer debt is rising, consumers did not appear to have become over extended [3, 4, 5, 7, 8, 9, 10, 14, 17]. Another conclusion is that consumer credit contributes to the fluctuations in business activity, but it is not a cause of the turning points [4, 12, 14].

More recent analyses of consumer credit have focused on the debt positions of households and their relationships with bankruptcies and developments in consumer credit markets. Curtin and Neubig [1] indicate that households expanded their use of credit cautiously during the 1970s. Palash [13] examined all forms of household debt and found little change in delinquency and bankruptcy rates. Harris and Bradley [6] and Luckett [11] conclude that the debt-to-income ratio during the 1970s was not out of line with the post World War II experience. Shepard [16] utilizing more recent data has concluded that higher debt-to-income ratios have accounted for approximately one-half of the postwar growth of bankruptcies.

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[1] Consumer installment credit is credit extended to individuals through normal business channels scheduled to be repaid, or with the option of repayment, in two or more installments.

[2] Disposable income is the equivalent of spendable income, and personal income is income before taxes. The interpretation of the difference in growth rates is that taxes have increased over the time period, causing disposable income to grow somewhat slower.

A recurring theme in all of these analyses is the importance of the life-cycle behavior of households. Credit use and delinquency rates vary with the stage of the life-cycle, as shown in such analyses as the 1977 Survey of Consumer Finances, conducted by the University of Michigan. Table 1 provides an indication of this effect by presenting data on the distribution of installment debt by age of the head of the family in 1960 and 1977. In either year, the highest incidence of borrowing occurred in families having a head between 25 and 34 years of age. Subsequent age groups have progressively lower proportions. The table also indicates that there may have been a very small increase in the inclination to borrow, as in most age groups the 1977 proportions are slightly larger than in 1960, a conclusion reached in [1].

TABLE 1. Installment Debt and Age of Family Head 1960 and 1977

	Percent with Installment Debt	
Age of Head	1960	1977
Under 25	54	60
25-34	63	64
35-44	59	61
45-54	51	52
55-64	31	38
65 and older	15	11

Source: Survey Research Center, University of Michigan, The 1977 Survey of Consumer Finances.

Enthoven [3] was the first to develop an explicit model of consumer credit growth using a life-cycle perspective. The model has been re-evaluated by Evans [4]. In the fifteen years since the re-evaluation, studies of consumer credit growth have been independent of the Enthoven model, and this is somewhat unfortunate, as it could have provided a convenient analytical framework. In addition, the longer time period permitted in the subsequent analyses would have served as a better test of the model's long-run implications. The next section of the paper outlines the key features of this model.

Enthoven's Growth Model

Consider the following hypothetical situation. All households borrowing during an initial year are young couples, having the same propensity to borrow. Assume that new debt arising in any year is a proportion of that year's income and that income grows at a constant annual rate. Those who are borrowers comprise a constant proportion of the population. For simplicity, assume all loans have the same length of contract, n. These conditions are consistent with equations 1 and 2, where Y denotes income, ND represents new debt, t is a time subscript, and r is the annual rate of growth.

$$ND_t = bY_t \tag{1}$$

$$Y_t = Y_o(1+r)^t \tag{2}$$

Repayments, R, represent reductions in debt outstanding, D, and new debt increases debt outstanding. Consequently, the change in debt outstanding during any year equals the difference between new borrowings and repayments.

$$D_t - D_{t-1} = ND_t - R_t \tag{3}$$

Since repayments are the result of past borrowing, and past borrowing is a function of income (equation 1), then equation 3 may be rewritten in terms of income.

$$\begin{aligned} D_t - D_{t-1} &= bY_t - LbY_{t-1} - \dots - LbY_{t-n} \\ &= a_oY_t + a_1Y_{t-1} + \dots + a_nY_{t-n} \\ &= (1+r)^tY_o\,[a_o + \frac{a_1}{(1+r)} + \dots + \frac{a_n}{(1+r)^n}] \qquad (4) \end{aligned}$$

The interpretation of equation 4 is that changes in outstandings are proportional to an expression which grows at the same rate as income, or:

$$D_t - D_{t-1} = aY_t \tag{5}$$

Suppose that during the initial year, o, there is a relatively low level of existing debt. For example, at the end of the Second World War, consumer installment debt was usually low, due to the war effort. Adding an initial level of outstanding debt in light of equation 5 results in the level of outstanding debt in any year t being determined by the initial level of income, the rate of income growth, the proportion of income generating a change in debt, and the starting level of debt. For the first two years this is:

$$D_1 = a(1+r)Y_o + D_o$$

$$D_2 = a(1+r)^2Y_o + a(1+r)Y_o + D_o$$

Or, in general:

$$D_t = aY_o[\sum_{i=1}^{t} (1+r)^i] + D_o$$

This is a series which can be shown to have the following sum.

$$D_t = a\frac{(1+r)}{r}Y_o[(1+r)^t-1] + D_o \tag{6}$$

Using (2) and (6), the debt-to-income ratio is:

$$(D/Y)_t = \frac{a(1+r)}{r} - [\frac{a(1+r)}{r} - (D/Y)_o]/(1+r)^t \tag{7}$$

What happens to the ratio in the long run? That is, as t becomes larger and larger, what is the effect on the right-hand side? There is no effect on the first term because t does not appear. However, the second term approaches zero, because the denominator becomes larger and larger. The limiting debt-to-income ratio is:

$$\lim_{t \to \infty} (D/Y)_t = \frac{a(1+r)}{r} \tag{8}$$

The model indicates that, given the assumptions, consumers will not continuously borrow. There is a limit to the amount of debt typical consumers will incur. This limit is determined by the rate of growth of income and the proportion of current income which is associated with changing debt levels.

Equation 8 has several implications for the analysis of consumer installment credit. First, the model suggests, as noted above, there is a limit to credit growth relative to income. Consumers are not envisioned as continuously going into debt. Second, if for some reason there is a period of above normal debt growth, consumers adjust subsequently by incurring debt at a somewhat lower rate of growth. Third, credit growth should be analyzed from a long-run perspective.

This growth model provides a useful framework for analyzing credit growth. Consumers are not necessarily becoming over extended whenever outstandings rise faster than income. Rapid increases in debt could reflect an adjustment on the part of consumers due to some structural change such as the end of the Second World War. But the increases continue at a decreasing rate, or approach the ceiling asymptotically. Short-run cycles occur around the trend. The relevance of the model depends on how well the data support this perspective, and the next section provides this discussion.

Empirical Tests

To determine how well the model conforms to the post World War II experience, it is necessary to obtain estimates of a and r. Once this has been accomplished, then equation 8 becomes a straightforward calculation. Having the time period for the analysis beginning with 1945 has the advantage of the starting debt level, D_0, being relatively small. An estimate of r can be obtained through using the beginning and end of period values of Y in equation 2 and solving for r. Given the estimated r, fitting a regression to equation 6 produces an estimated a.

Enthoven [3] obtained a limiting debt-to-income ratio for the 1945-56 period of .188. This was based on a calculated r of .060 and an estimated a of .0107. Evans [4], in a subsequent application covering 1946-64, obtained a limiting debt-to-income ratio of .178, based on a calculated r of .0575 and estimated a of .0096. Both concluded that the asymptotic trend identified by the growth model had a real world counterpart.

Nearly twenty years have elapsed since the Evans study, and this almost doubles the time period which can be used to test the model's implications. Consequently, an empirical analysis seems warranted, especially in light of recent concern about consumer debt levels, bankruptcy, and saving. Preliminary results are presented and interpreted below. The time period is 1945-1983. Two measures of annual income are used. One is personal income which is the one used in the previous studies. The other is disposable income. It is a measure of spendable income and is a more relevant measure for purchase decisions. Outstandings are end of year values.

Tables 2 and 3 provide the relevant data. The first presents the calculations with respect to personal income, and the second pertains to disposable income. The calculated annual rates of growth of income are .0759 for personal income and .0749 for disposable income. Initial regression results associated with equation 6 indicated very high degrees of auto-correlation, so the equations were re-estimated using weighted first differences. Estimated a values are .0105 for personal income and .0122 for disposable income.[3] Given these sets of estimates, predicted levels of debt, income, and debt-to-income ratios were calculated. These are also displayed in the tables. Figures 1 and 2 present the actual and predicted ratios in graphical form.

Examination of the data leads to the conclusion that the credit growth predicted by the model has a real world counterpart. Notice the actual debt-to-income ratios for either personal or disposable income appear to be growing asymptotically. Short-run cycles in credit growth seem to fluctuate around a long-run trend which approaches an upper limit. Using equation 8, the limits are .149 for personal income and .175 for disposable income.[4] These calculations are consistent with observations made by Shepard that credit expansion levelled off in the mid-1960s and debt burdens levelled off since the mid-1970s [15, 16].[5]

Inspection of the figures also points to a limitation of the model in its present form. In most years the actual ratios are greater than the predicted values. A least squares approximation of the actual ratios (as opposed to equation 6 divided by 2) would generate a higher asymptotic

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[3] Weights used in computing the differences were the estimated auto correlation efficients obtained from the initial regressions. These were .837 and .841 for the personal and disposable income equations, respectively. The assumption of no autocorrelation in the weighted first difference equations was maintained. The a coefficients reported here had prob-values considerably smaller than .01, and the R^2 values were greater than .95.

[4] Since personal income is income before taxes, it is expected that a should be higher when using disposable income.

[5] Estimates of r and a are sensitive to the choice of the beginning and end years. The position of the predicted curve could be raised somewhat by choosing an earlier year, especially 1979. However, this would not affect the basic analysis here of an asymptotic long-run growth, and the latter 1970s would still be above the trend.

TABLE 2. Predicted and Actual Debt Using Personal Income

Year	PI	$\widehat{PI}$	D	$\hat{D}$	$D/_{PI}$	$\hat{D}/\widehat{PI}$
1945	171.2		2.3		.014	
1946	178.0	184.2	4.2	4.4	.023	.024
1947	189.8	198.1	7.1	6.5	.037	.033
1948	208.5	213.1	9.5	8.7	.046	.041
1949	205.6	229.2	12.2	11.1	.059	.048
1950	226.1	246.6	15.5	13.7	.069	.055
1951	253.7	265.2	16.2	16.5	.064	.062
1952	270.4	285.3	20.5	19.5	.076	.068
1953	286.1	306.9	24.3	22.7	.085	.074
1954	288.2	330.2	24.9	26.2	.086	.079
1955	308.8	355.2	30.3	29.9	.098	.084
1956	330.9	382.0	33.2	33.9	.100	.089
1957	349.3	411.0	35.4	38.2	.101	.093
1958	359.3	442.1	35.3	42.9	.098	.097
1959	382.1	475.5	41.1	47.8	.108	.101
1960	399.7	511.5	45.1	53.2	.113	.104
1961	417.8	550.3	46.0	59.0	.110	.107
1962	443.6	591.9	51.0	65.2	.115	.110
1963	466.2	636.7	57.8	71.9	.124	.113
1964	499.2	684.9	65.6	79.1	.131	.115
1965	540.7	736.8	73.9	86.8	.137	.118
1966	588.2	792.5	79.3	95.1	.135	.120
1967	630.0	852.5	83.1	104.1	.132	.122
1968	690.6	917.1	91.7	113.7	.133	.124
1969	754.7	986.5	101.2	124.1	.134	.126
1970	811.1	1,061.2	105.5	135.2	.130	.127
1971	868.4	1,141.5	118.3	147.2	.136	.129
1972	951.4	1,227.9	133.2	160.1	.140	.130
1973	1,065.2	1,320.9	155.1	174.0	.146	.132
1974	1,168.6	1,420.8	164.6	188.9	.141	.133
1975	1,265.0	1,528.4	172.0	204.9	.136	.134
1976	1,391.2	1,644.1	193.5	222.2	.139	.135
1977	1,540.4	1,768.6	230.6	240.8	.150	.136
1978	1,732.7	1,902.4	273.6	260.7	.158	.137
1979	1,951.2	2,046.5	312.0	282.2	.160	.138
1980	2,165.3	2,201.4	313.5	305.3	.145	.139
1981	2,435.0	2,368.0	331.7	330.2	.136	.139
1982	2,578.6	2,547.3	355.8	357.0	.138	.140
1983	2,744.2	2,740.1	396.1	385.7	.144	.141

PI = personal income (billions).

$\widehat{PI}$ = predicted personal income (billions).

D = outstanding installment debt (billions).

$\hat{D}$ = predicted outstanding installment debt (billions).

$D/_{PI}$ = debt to personal income ratio.

$\hat{D}/\widehat{PI}$ = predicted debt to personal income ratio.

Source: U.S. Department of Commerce. Survey of Current Business and U.S. Board of Governors, Federal Reserve Bulletin, selected issues.

TABLE 3. Predicted and Actual Debt Using Disposable Income

Year	DI	$\widehat{DI}$	$\hat{D}$	$D/_{DI}$	$\hat{D}/\widehat{DI}$
1945	150.4			.016	
1946	160.6	161.7	4.4	.026	.027
1947	168.4	173.8	6.5	.042	.038
1948	187.4	186.8	8.8	.051	.047
1949	187.1	200.8	11.3	.065	.056
1950	205.5	215.8	13.9	.075	.064
1951	224.8	232.0	16.7	.072	.072
1952	236.4	249.4	19.8	.087	.079
1953	250.7	268.0	23.1	.097	.086
1954	255.7	288.1	26.6	.097	.092
1955	273.4	309.7	30.4	.111	.098
1956	291.3	332.9	34.4	.114	.103
1957	306.7	357.8	38.8	.116	.108
1958	317.1	384.6	43.5	.111	.113
1959	336.1	413.4	48.6	.122	.117
1960	349.4	444.4	54.0	.129	.121
1961	365.8	477.7	59.8	.126	.125
1962	386.8	513.5	66.1	.132	.129
1963	405.9	551.9	72.8	.142	.132
1964	440.6	593.3	80.1	.149	.135
1965	475.8	637.7	87.9	.155	.138
1966	513.7	685.5	96.3	.154	.140
1967	547.9	736.8	105.3	.152	.143
1968	593.4	792.0	114.9	.155	.145
1969	638.9	851.3	125.3	.158	.147
1970	695.3	915.1	136.5	.152	.149
1971	751.8	983.6	148.6	.157	.151
1972	810.3	1,057.0	161.5	.164	.153
1973	914.5	1,136.5	175.4	.170	.154
1974	998.3	1,221.6	190.3	.165	.156
1975	1,096.1	1,313.1	206.3	.157	.157
1976	1,194.4	1,411.4	223.6	.162	.158
1977	1,314.0	1,517.1	242.1	.175	.160
1978	1,474.0	1,630.8	262.0	.186	.161
1979	1,650.2	1,752.9	283.5	.189	.162
1980	1,828.9	1,884.2	306.5	.171	.163
1981	2,047.6	2,025.3	331.2	.162	.164
1982	2,176.5	2,177.0	357.8	.163	.164
1983	2,340.1	2,340.1	386.4	.169	.165

DI = disposable personal income (billions).

$\widehat{DI}$ = predicted disposable personal income (billions).

$\hat{D}$ = predicted debt outstanding.

$D/_{DI}$ = debt to disposable income ratio.

$\hat{D}/\widehat{DI}$ = predicted debt to disposable income ratio.

Source: U.S. Department of Commerce. Survey of Current Business and U.S. Board of Governors, Federal Reserve Bulletin, selected issues.

Figure 1

Predicted and Actual Debt to Personal Income Ratios

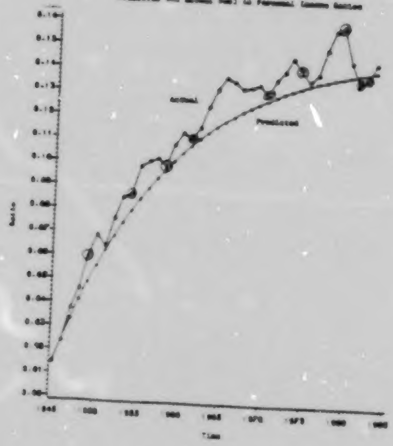
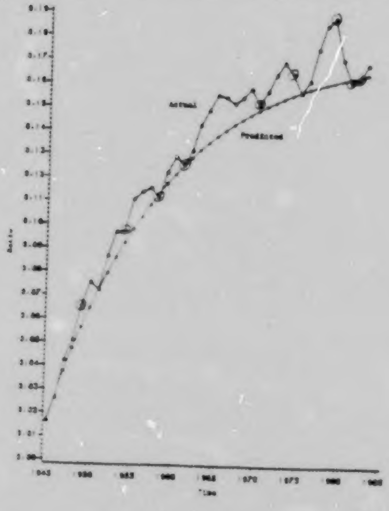


Figure 2

Predicted and Actual Debt to Disposable Income Ratios



trend. In addition, the divergence seems to increase over the time period. Two considerations seem to be the major factors associated with the discrepancy.

One factor is the predicted income. During the 1960s and 1970s both measures of income actually grew at lower than average rates. Consequently, income levels predicted by equation 2 were greater than actual levels, and this causes higher actual debt-to-income ratios relative to the predicted ones.

The other factor is a result of the assumptions associated with the model. In particular, the derivation of equation 8 assumes the distribution of borrowers remains constant, but this may not have occurred. In fact, the changing age distribution of the population most likely has raised the limiting debt-to-income ratio above the ones presented here. Suppose the proportion of consumers which borrows within a particular stage of the life-cycle does not change over time. For example, if 30 percent of the consumers between 20 and 30 years old in 1950 used installment credit, the same percentage would apply to those in this stage in 1970. Suppose further, that across stages of the life-cycle there are differences in the proportions which borrow. Specifically, those in the earlier stages are more inclined to borrow. Then, changes in the age distribution of the population would result in changes in the limiting debt-to-income ratio.

The aging of the post World War II baby boom is consistent with an increasing debt-to-income ratio during the later year of the time period. Previous analyses of consumer credit users have documented the greater likelihood of younger consumers using installment credit. Data in Table 4 provide an indication of the impact this generation may have had. Notice that the age distribution of families in the primary borrowing age group increased significantly in 1970 and 1980. This suggests that the changing age distribution of the population, by itself, has had an effect not explicitly incorporated into the model. Part of the explanation of the relatively high ratios which occurred in the 1970s, especially towards the end of that decade, could reflect the emergence of the baby boom generation into that stage of the life-cycle which is most likely to use credit.

TABLE 4. Age Distribution of Heads of Households

Age of Head	Percent Distribution 1980	1970	1960	1950
14-24	8.1	6.8	5.4	5.2
25-34	22.9	18.5	20.4	22.7
35-44	17.3	18.6	23.9	24.2
45-54	15.7	19.5	21.0	20.3
55 and over	36.0	36.6	29.3	27.7

Source: U.S. Bureau of the Census. Current Population Reports, Series P-20 and Historical Statistics of the United States: Colonial Times to 1970, Volume 1.

The growth model provides a convenient analytical perspective. Just focusing on this baby boom, the inference is that the long-run trend shifts up somewhat. The new limiting ratio will still be approached asymptotically. An implication is that as the shift occurs, debt to income ratios would appear to be growing at a higher, but temporarily so, rate.

Conclusions

These results provide a useful perspective for evaluating the four concerns regarding consumer credit growth. Consumers, as a group, appear to be quite deterministic in their use of credit. Although levels of debt have been rising, consumers seem to be adjusting their debt to conform to long-run goals. This is especially true if allowances are made for the actual rate of income growth and changes in the age distribution of the population. In addition, periods of relatively high credit growth are followed by periods of slower growth, providing an adjustment to the long-run. For example, the late 1970s was a period of high credit growth, and it has been followed by a period of lower growth [11, 13].

Another conclusion is that consumers' use of credit is not out of line with past experience and continued credit growth should be less pronounced as debt levels approach the ceiling. Consequently, consumer saving in the economy is not out of line with past experience, and this is indicated by data on the savings rate. Preliminary savings rates estimates of the late 1970s have been revised upwards, and current savings rates are compatible with historical norms.

The model and data continue to suggest that consumer credit does not cause fluctuations in economic activity. This can be inferred from an examination of the recession years. They are circled in the figures. In the majority of these instances the actual ratios are above the long-run trends which suggests that credit during these periods actually contributed to aggregate demand.[6] Fluctuations in credit growth do not appear to be related in a consistent manner with turning points in business activity.

Consumers over an extended period of time appear to have been quite consistent in their use of credit. Actual debt-to-income ratios seem to be growing in a fashion which is approximated by a long-run asymptotic pattern. Rapid credit expansion over a short period of time does not have to be a cause for alarm. Changes in income growth and demographic composition can be sources of installment debt growth. As the postwar baby boom enters the life cycle stage in which borrowing is most likely to occur, it will lead to credit growth; and as this segment of the population enters subsequent stages, continued adjustment towards the long-run debt-to-income ratio should occur.

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[6] This observation is identical to that of Evans [3].

DETERMINANTS OF HOUSEHOLD DEBT REPAYMENT-INCOME RATIO

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ABSTRACT

The purpose of this study was to provide information regarding factors which affect credit use levels of different types of households. Two separate regression analyses were performed using one sample consisting of dual-earner households and one consisting of female householders with children under the age of 18. Using debt repayment-income ratio as the dependent variable and various household characteristics as the independent variables, the results of this study indicate that some factors affecting household debt levels do differ between the two household types and some do not.

INTRODUCTION

In recent years, credit has played an increasingly important role in the financial planning of many American households. From 1973 to 1983, total outstanding consumer installment credit increased 112% [29, p. 518]. During this same period, non-business bankruptcy estates filed increased 189% [28, p. 536]. Since credit is used to such an extent, research into consumer credit behavior can be useful to consumers and consumer professionals. In order to promote the wise use of credit by households so as to increase household utility levels as explained by Herendeen [13] and Kinsey and Lane [18], it is helpful to analyze household credit-use based on the characteristics of current households.

HISTORICAL BACKGROUND

The perceived role of credit in the welfare of the household has changed over time. In the early literature regarding credit the use of credit by consumers was considered clearly irrational. Eubank 1938) contended that credit was useful primarily to those who found themselves in the position of having no job, and therefore, no income [8]. According to Mors (1944), consumer credit was designed for and should be restricted to emergency use only [23]. Hardy (1938) distinguished between producer's credit and consumer's credit [11]. Producer's credit should allow one to expand operations in order to add to income in an amount greater than the interest paid [11, p. 2]. Consumer's credit on the other hand is ". . .to enable the borrower to enjoy an income before earning it or otherwise receiving it. Any ultimate increase in his income. . .is purely incidental" [11, p. 3].

Fisher (1930), however, developed a model of intertemporal consumption which showed that, through the use of credit, not only could the family's income stream be used to meet desired family consumption levels across the life cycle, but the use of credit would actually generate income for the family [9]. Following Fisher's model, Herendeen (1974) developed a model in which the household is viewed as a producer, a producer of consumption services. As a producer, Herendeen concluded that it is rational for households to borrow in order to expand the production of consumption services to increase income or durable assets and, consequently, utility, just as earlier writers contended that it was rational for producers to borrow to expand production services in order to increase profits [13].

PURPOSE OF RESEARCH

The basic premise of this research is based on Herendeen's theory that consumer decisions regarding credit-use affect welfare. Information is necessary in order to make credit decisions. Personal finance literature [1, 3, 20, 25, 26] identifies guidelines regarding credit-use levels to help households make these decisions. This literature generally suggests that no more than 20% of disposable income be used to make installment debt payments, excluding mortgages and credit card debts which are paid in full by the due date. Commitment above the 20% level signifies that the debtor could be headed for credit problems.

However, the 20% figure is identified as the top credit limit for the "average" family. No literature has been found which looks at household types outside the context of "average." Amling and Droms [1, p. 175] suggest that household circumstances must be considered when using debt guidelines. This research addresses household types outside the context of "average." It is an initial effort to break down the guidelines and identify differences for different household types.

Furthermore, although there exists a great deal of research which has looked at characteristics of credit users [2, 4, 5, 6, 7, 10, 12, 14, 15, 16, 17, 19, 21, 22, 24, 27 30] little research has been done to determine the relative importance or impact of various sets of characteristics on credit-use by households. Also, most of the research which exists is univariate in nature. This research investigates the relative importance of various household characteristics on level of credit-use using multivariate analysis.

Therefore, the purpose of this research is to provide information regarding the use of credit by different types of households to be used by consumer professionals in their efforts to help improve consumer effectiveness in the use of credit. In an effort to do this, this study addresses household debt burden with regard to the flow of income. It identifies factors which affect the proportion of monthly disposable income which is committed to monthly installment debt payments in order to identify differences for various household types.

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METHODOLOGY

Data

The data were collected in 1979 by A&S, Inc., a national market research company for Purdue University Credit Research Center. Personal interviews were conducted with an adult household member having knowledge about household finances in 3,572 households in four urban areas: Little Rock, Arkansas; Lake Charles, Louisiana; Kenosha, Wisconsin; and Waukegon, Illinois.

Variables

The dependent variable used throughout this study is monthly installment debt repayment amount-monthly disposable income ratio of households, referred to as debt repayment-income ratio. This ratio identifies the proportion of household monthly disposable income which goes to repay household monthly installment debt.

Monthly disposable 1978 family income is the denominator and is defined as total income of all family members from wages and salaries, dividends, interest, tips, etc. minus Federal income taxes and Social Security taxes. Household monthly installment debt repayment amount as the numerator is defined as the sum of monthly payments for each household on closed-end installment debt for commodities in 1977 and 1978. (Mortgage debt is excluded.)

The independent variables in the study are based on the research literature (previously identified) and the knowledge of the researcher. Table 1 identifies the variable within each vector. The following model identifies the relationship:

$Y = f(X_1, X_2, X_3, X_4, X_5, X_6)$,

where vector:

X_1 is rationed status;

X_2 is sociodemographic variables;

X_3 is household economic characteristics;

X_4 is financial experience other than X_1;

X_5 is attitude regarding consumer credit-use;

X_6 is prospects of future income.

Method

Two separate models are developed. The first model (DEF Model) consists of 786 dual-earner families. The second model is made up of 101 female householders living as single with children under age 18 (FHWC Model). Both models include both users and nonusers of credit.

Multiple regression analysis was used to identify descriptors of the debt repayment-income ratio for the household types studied. A two-tailed F test was performed to measure the level of significance of each regression coefficient. The .10 level of significance was used to evaluate the F values. However, as the intent was to identify factors which explained the ratio (DR/Y) for different household types, variables having an F value equal to or greater than one were retained in the final equation for each model.

Table 1. Comparison of Regression Results for the DEF Model and the FHWC Model

Vectors: Variables		DEF Model	FHWC Model
X_1 Rationed Status (Unrationed = 1)	RS	-.0140 (3.295)*	-.0416 (2.656)
X_2 Sociodemographic			
Race of Respondent (White = 1)	R	-.0157 (3.663)*	———
Number of Children by Age Ages 0 - 5	CHILD 1	-.0079 (2.149)	———
Age of Respondent	AGE	-.0007 (5.731)**	———
Home Telephone (Yes = 1)	TELE	.0221 (1.492)	———
Home Ownership (Yes = 1)	HOWN	-.0190 (5.215)**	———
Number of Years at Present Residence	YPR	———	———
Reference to Documents (Frequently or Sometimes = 1)	RD	.0226 (7.612)***	-.0805 (2.582)
X_3 Economic			
Value of Liquid Assets	LAS	———	———
Employment Status of Respondent (Working for Pay = 1)	RES	———	———
No. of Years with Current Employer - Respondent	RYCE	-.0008 (4.128)**	.0061 (2.178)
X_4 Household Financial Variable Other Than X_1			
Life Insurance (Yes = 1)	LI	.0512 (14.333)****	———
Total Credit Line on All Credit Card Accounts	TCLCC	———	-.0000 (2.517)
Credit Card Repayment Patterns (Don't Always Pay in Full on All = 1)	CCRP	.0205 (11.002)****	.1471 (15.309)****
Past Loan Repayment Patterns (Not Always on Time = 1)	PLRP	.0129 (1.704)	———
Perception of Future Repayment Patterns (Trouble Unlikely = 1)	PFRP	———	.0700 (6.208)**
X_5 Attitude Toward Credit Use			
General Attitude Toward Credit (Always Positive = 1)	GATC	———	.0439 (2.589)
Appropriate to Use Credit for: (Yes = 1)			
Vacation	V	———	-.0434 (2.041)
Living Expenses When Income Cut	LE	-.0107 (2.872)	-.0388 (2.136)
Consolidate Bills	CB	———	.0471 (2.941)*
Boat, Snowmobile Hobby Items	BSH	.0187 (7.270)***	———
Car	CAR	.0222 (3.426)*	———
Expenses Caused by Illness	ILL	———	———
X_6 Prospects of Future Income	PFI	———	———
Total Number of Children Age 0 - 17	CHILD 4	———	.0206 (3.067)*
Intercept		.0531	-.0504
R^{-2}		.[illegible]956	.2092
F Value		6.9896****	3.4042****
N		786	101
df		14/771	11/89

[1] Numbers above those in parentheses are the coefficients; numbers in parentheses are F Values. Statistical significance levels are indicated as follows: $^*p \leq .10$, $^{**}p \leq .05$, $^{***}p \leq .01$, $^{****}p \leq .001$.

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RESULTS

Sample Description

The Dual-Earner Family (DEF) Model consists of 1,034 married households in which both spouses are working for pay. The mean debt repayment-income ratio for the DEF sample is 8.3%. The Female Householder living as single With Children (FHWC) Model consists of 175 households with one adult only, a female, living as single and having children under age 18. The mean debt repayment-income ratio for the FHWC sample is 6.6%. Means and standard deviation for variables used in each model are found in Table 2 (DEF Model) and Table 3 (FHWC Model).

Table 2. Means and Standard Deviations for Variables in DEF Model

Variable	N	Mean	Standard Deviation
DR/Y	804	0.083	0.091
RS	1031	0.768	0.422
S	1034	0.660	0.474
ED	1034	12.769	2.731
MD	1034	1.00	0.000
R	1032	0.818	0.386
CHILD1	1028	0.293	0.589
CHILD2	1028	0.381	0.695
CHILD3	1028	0.420	0.791
AGE	1032	38.724	12.368
TELE	1030	0.962	0.191
HOWN	1034	0.813	0.390
YPR	1034	7.938	8.912
RD	1032	0.156	0.363
LAS	743	65289.100	77600.880
RES	1034	1.00	0.000
RWS	1028	44.522	10.774
RYCE	1032	8.653	8.603
SES	1034	1.000	0.000
SWS	1020	34.189	22.118
SYCE	1028	5.185	6.211
LI	1032	0.946	0.227
MI	1032	0.879	0.326
NCCA	999	4.272	4.132
TOCCA	944	620.552	1971.810
TCLCC	596	1608.872	2318.567
CCRP	1033	0.426	0.495
PLRP	1024	0.107	0.310
PFRP	1020	0.918	0.275
GATC	1030	0.554	0.497
V	1033	0.192	0.394
LE	1031	0.385	0.487
CB	1032	0.426	0.495
FCJ	1032	0.058	0.234
BSH	1029	0.258	0.437
CAR	1032	0.931	0.253
ILL	1029	0.779	0.415
EE	1031	0.790	0.408
FURN	1032	0.630	0.483
PFI	1015	3.693	0.845
CHILD4	1028	1.094	1.179
AGES	1032	1652.352	1054.154
NEX	1016	0.022	0.146
LEX	1027	0.028	0.166

Regression Results

The DEF Model contains 14 variables, each having an F value equal to or greater than one. (See Table 1). The F value for the equations is significant at the .001 level. The variables in the DEF Model explain about 10% of the variance in DR/Y for dual-earner families.

Rationed status, RS, refers to whether or not the respondent had ever been refused credit or had received less credit than requested in the two years preceding the survey. In the DEF Model, RS is significant at the .10 level. The negative coefficient indicates that unrationed households have lower DR/Ys than do rationed households.

The negative coefficient for race, significant at the .10 level, indicates that whites have a lower DR/Y than do nonwhites. The coefficient for age is statistically significant at the .05 level. The negative coefficient denotes that a one-year increase in age results in a .0007 decrease in DR/Y.

Table 3. Means and Standard Deviations for Variables in FHWC Model

Variable	N	Mean	Standard Deviation
DR/Y	138	0.066	0.125
RS	173	0.590	0.493
S	175	0.000	0.000
ED	175	11.749	2.614
R	175	0.600	0.491
CHILD1	174	0.511	0.735
CHILD2	174	0.695	0.843
CHILD3	174	0.644	0.931
AGE	175	34.394	11.460
TELE	175	0.823	0.383
HOWN	175	0.389	0.489
YPR	175	6.783	11.561
RD	175	0.091	0.289
LAS	136	14836.882	28844.716
RES	175	0.600	0.491
RWS	175	23.920	20.748
LI	175	0.617	0.487
MI	174	0.511	0.501
NCCA	173	1.827	3.585
TOCCA	166	212.898	845.668
TCLCC	143	413.601	1146.718
CCRP	175	0.314	0.466
PLRP	174	0.259	0.439
PFRP	170	0.671	0.471
GATC	171	0.567	0.497
V	175	0.189	0.392
LE	175	0.491	0.501
CB	171	0.515	0.501
FCJ	175	0.023	0.150
BSH	174	0.103	0.305
CAR	173	0.867	0.341
ILL	172	0.756	0.431
EE	174	0.764	0.426
FURN	172	0.564	0.497
PFI	165	3.376	1.008
CHILD4	174	1.851	1.168
AGES	175	1313.537	1029.865
NEX	172	0.012	0.108
LEX	174	0.011	0.107

Home ownership (HOWN) is significant at the .05 level. The negative coefficient suggests that DR/Y is less for homeowners than for respondents of other tenure status types. Reference to documents (RD) is used as a proxy for different approaches to financial management. The consumer who has documents and refers to them represents a more thoughtful approach to consumer credit decision making. The regression results show that referring to documents "frequently or sometimes" during the survey is associated with an increase in DR/Y. The coefficient is statistically significant at the .01 level.

Number of years with current employer by respondent, RYCE, the only variable in Vector X_3, economic factors, to be retained in the DEF Model, is significant at the .05 level. The negative coefficient indicates that as the number of years with current employer increases, DR/Y decreases.

Two household financial variables are significant in the DEF Model: life insurance (LI) and credit card repayment patterns (CCRP). Having life insurance and DR/Y are positively related. The LI coefficient is significant at the .001 level. Not always paying the full amount owed on all credit card accounts is associated with increases in DR/Y. The CCRP coefficient is significant at the .001 level.

Two variables in the DEF Model regarding attitude toward credit are significant. Whether or not the respondent considered credit-use appropriate for the purchase of a boat, snowmobile or hobby item

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(BSH) is positively related to DR/Y and is significant at the .01 level. Considering credit-use appropriate for a car purchase (CAR) is also positively related to DR/Y and is significant at the .10 level.

Regression results for the FHWC Model are shown in Table 1. The F value for the equation is significant at the .001 level. Four of the final 11 variables are significant. The variables explain about 21% of the variance in DR/Y for female householders living as single with children under age 18.

The variable CHILD4 represents total number of children under the age of 18. The coefficient of CHILD4 is significant at the .10 level. The positive coefficient suggests that with each additional child under age 18 in the household, DR/Y increases .0206.

Two household financial variables are significant: credit card repayment patterns and perception of future loan repayment patterns (PFRP). The positive CCRP coefficient indicates that respondents not always paying in full on all credit card accounts have higher DR/Ys than those always paying in full on all accounts. Regarding PFRP, as confidence in ability to repay future debt increases, DR/Y increases.

Of the variables in the model which address appropriate uses of credit, only whether or not credit-use is appropriate for consolidating bills which have piled up (CB) is significant (.10 level). The positive coefficient suggests that the more likely the respondent is to feel that credit-use is appropriate for consolidating bills, the higher DR/Y.

Comparison of the DEF Model and FHWC Model suggests both similarities and differences in the major determinants of debt repayment/income. The extent of the differences is evidence that the determinants of debt levels as a proportion of income vary for differing household types. Several of the socio-demographic variables which are significant in the DEF Model are not even retained in the FHWC Model. While credit card repayment patterns are significant in both models, perception of future loan repayment patterns is significant only in the FHWC Model. Attitudes toward credit-use in the two models reflect a positive attitude for luxury-type items in the DEF Model and necessary-type items in the FHWC Model.

The relatively low $\bar{R}^2$ for the DEF Model could reflect the heterogeneous nature of the sample used. For example, although it consists of only dual-earner families, this could be the only similar factor from case to case. Variations of individual factors, such as income, job type, etc. across observations cancel each other out when a relatively large heterogeneous sample is used. In addition, the model might be misspecified. That is, variables are omitted that should have been included, for example, dollar amount overdue on credit card accounts and monthly housing costs.

The higher $\bar{R}^2$ for the FHWC Model reflects the homogeneity of the sample used. It is also possible that the linear model and/or the independent variables used fit the FHWC sample better than they fit the DEF sample.

CONCLUSIONS

The results of this research confirm the contention of Amling and Droms that the guidelines "must be tempered with common sense and a knowledge of your own particular situation" [1, p. 175]. The factors identified in each model in Table 1. suggest that the DR/Y function differs depending on individual circumstances.

Knowledge about factors affecting the DR/Y of different types of households is useful to consumer educators. Information provided as a result of this research can be used in preparing educational materials, in family financial counselling and in classroom settings, both formal and informal.

An obvious research implication is the need to further investigate whether or not debt repayment-income ratios of households are similar to those found in this research or to those used in benchmarks in personal finance literature. Although established benchmarks are useful, this study provides information identifying the importance of the implications that each household is unique. Further research comparing differences between credit users and noncredit users for various household types would add to this bank of knowledge. Other household types need to be analyzed, for example, elderly and single households.

This research work is only a beginning of what could be done in the area of debt repayment in relationship to income. Much more investigation into this topic is necessary.

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ADJUSTABLE-RATE CONSUMER LOANS: A TRADE-OFF

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ABSTRACT

Adjustable-rate automobile and other consumer loans are being offered more frequently. A series of simulations test the risk-return trade-off faced by consumers and the interest-rate risk v. credit risk faced by lenders. These risks are shown to be related to the initial contract rate and maturity; timing and amount of rate increase; and form of contract adjustment.

While adjustable-rate mortgage loans have been available for quite some time and now comprise a significant portion of the residential mortgage market, adjustable-rate consumer loans are of more recent origin and currently make up only a small portion of the consumer credit market. Nonetheless, the increasing use of adjustable-rate consumer loans (ARLs) raises many of the same issues associated with adjustable-rate mortgages (ARMs).

THE BASIC ISSUES

There are two primary issues: first, the risk-return trade-off faced by consumers contemplating ARMs and ARLs; and, second, the interest-rate risk v. credit risk trade-off faced by lenders. As we shall see, the two risks are closely related, although credit grantors also have another source of risk arising from features of ARMs and ARLs that narrow or eliminate the margin between the unpaid balance on the loan and the value of the collateral.

Risk v. Return Trade-Off of Consumers

Both ARMs and ARLs permit the rate charged consumers to vary from time to time in accordance with movements in some prescribed index. Consequently, depending upon the specific contract terms, some portion of the interest rate risk is borne by the consumer borrower. In return for shouldering this risk, the consumer is typically offered a lower initial rate on an ARL than on a fixed-rate loan (FRL). (In theory, the rate on the ARL should exceed that on the FRL when there is a downward sloping yield curve; in practice such a rate difference would probably not be acceptable to consumers.)

Concerns about the consumers' risk-return trade-off on ARMs have led to the adoption of interest rate and payment caps. A common restriction is a limit on the annual rate change to two percentage points or on the annual payment change to 15 percent. [1,p.HE17]. These limitations reflect concerns that consumers were assuming too great a risk or were simply unaware of the extent of their exposure to rising interest rates. The intent was to limit the risk assumed by consumers--with the obvious result that the return gained by consumers from assuming the risk would, in turn, be limited by the market.

The size of the interest-rate risk assumed by consumers with ARLs is also relevant to the future of this type of contract in consumer credit. Consumers are generally less able to hedge this risk than are credit grantors. Few consumers have access to futures contracts or have the facilities to match the durations of their assets and liabilities. While some creditors have been notably inept in hedging their interest-rate risk, they are probably better able than consumers to do so. Consequently, if consumers ultimately perceive that there is a substantial interest-rate risk, they will demand a larger discount from FRLs to assume that risk. Since creditors are more efficient at hedging that risk than consumers, creditors will be unwilling to grant the discount demanded by consumers. In that event, ARLs would largely disappear from the market. Thus, our interest in the degree of interest-rate risk relates not only to the possible need for legislation to limit the risk, but also to whether risky ARLs will persist in the marketplace.

Interest Rate Risk v. Credit Risk Trade-Off of Creditors

To the extent that concerns about the risks borne by consumers are warranted, they suggest that lenders have merely substituted an increased credit risk for a reduced interest-rate risk. Whether consumers unwisely, but knowingly, assume the interest-rate risk or discover the nature of their commitment only when monthly payments rise beyond their capacity to meet them, the level of costly delinquencies and defaults experienced by lenders is likely to rise. That significant losses can result from this "payment shock" is attested by mortgage insurers. Mortgage Guarantee Insurance Corporation (MGIC) reported in its year-end 1983 review of claims and defaults that the default incidence on graduated payment mortgage loans was 34 percent higher than on all loans.

Lenders also face a "collateral risk"--the risk that the unpaid balance on the loan may approach or even exceed the value of the collateral. In such a case, the consumer has little or no equity to lose through default, while the lender will stand to lose a higher portion of the unpaid loan.

This risk arises from the nature of adjustments made in adjustable-rate contracts in response to increases in interest rates. In many ARMs increases in monthly payments are capped at 7.5 percent in order to acquire mortgage insurance. Many short-term ARLs maintain a fixed monthly payment, but increase the number of payments in response to increases in interest rates. As a result, the monthly payment may not be adequate to pay even the finance charges due. The interest unpaid is added to the principal amount of the loan; thus, negative amortization occurs. Even if negative amortization does not occur, extending the maturity of a ARL reduces the rate at which the unpaid balance on the loan declines in relation to the value of the collateral.

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In some states negative amortization may involve not only a credit risk, but also a loss of income. Some state laws prohibit the collection of interest on interest. Since the unpaid interest is capitalized and becomes part of the principal, it is evidently not clear in some states whether a lender would be permitted to earn interest on those capitalized amounts.

ORGANIZATION

To address these issues, the remainder of the paper is divided into three parts. In the next part, we trace the growth of ARLs and explain their principal features that bear on the issues set forth above. Next, we analyze the features of ARLs that bear on their potential for payment shock and collateral shock. Simulations are based on a 48-month, new automobile loan and a 15-year second mortgage loan. The results of these simulations are then reviewed to assess the likelihood that consumers face a significant potential for payment shock or a lengthening of maturities that might drastically reduce their equity in assets serving as collateral for a loan. We conclude with a section appropriately named, "Summary and Conclusions."

GROWTH AND FEATURES OF ARLs

Origins and Growth

While ARMs had been employed for many years by scattered lenders, most particularly in the northeast, Ohio, and California, they gained markedly in 1980. In that same year, a few banks began to experiment with various forms of ARLs. The Union Planters Bank in Memphis is generally credited with being the first bank in the nation to experiment with ARLs. Other innovating banks were the Merchants National Bank (Indianapolis), Huntington National Bank, Central Bank of Birmingham, Maryland National Bank, and Peoples Trust of Ft. Wayne [2].

Although ARMs came to gain a majority share of new residential mortgages written, the growth rate of ARLs was much slower. The Consumer Bankers Association surveyed 168 member banks in February, 1982, and found that only 16 (9.5 percent) were offering ARLs, although four-fifths were studying the possibility of developing plans to enter the field.

While the number of banks offering ARLs increased sharply in 1983, they still comprised a minority of the total banking community. In 1983, 34.7 percent of banks with assets of $500 million and over provided ARLs, up from 17.8 percent in 1982. Whereas only three percent of the smallest banks had plans to offer ARLs in the future, 40 percent of the large banks had such plans [3,p.56].

Moreover, use of ARLs was restricted primarily to loan products with relatively long maturities--boats, automobiles, home equity (often on a revolving credit basis). The longer the maturity, the more the lender was exposed to the interest rate risk, and the more likely was there an effort to share the risk with the borrower.

Characteristic Terms

The terms of ARLs vary quite widely among lenders. Since we will be testing the effects of different terms on the payment patterns of ARLs in the following section, it will be helpful first to review the general nature of their terms.

Adjustments in response to changes in interest rates are based on a defined index, plus or minus a specified percentage. Indices commonly used are the prime rate, the rates on six-month money-market certificates, six-month U.S. treasury bills, moving averages of three-month treasury bills, or an index of a lender's money and operating costs.

The frequency of adjustment ranges from monthly to quarterly; some may make adjustments less frequently. The form of adjustment to a change in the index may be to change the amount of monthly payment, the number of monthly payments (maturity), or some combination. For example, one bank adjusts the number of payments on loans with maturities of five years or less, but the amount of the monthly payment on longer loans. The purpose of this latter arrangement is to reduce the risk of negative amortization.

These critical features of an ARL are exemplified in the excerpts below from a note and security agreement of the Maryland National Bank:

> The "Index Rate" for this Note and Security Agreement ("Agreement") is the Prime Rate published in the "Money Rates" section of The Wall Street Journal on the last business day upon which such publication is made in each calendar quarter during the term of this Agreement. If a range of Prime Rates is published, the applicable rate shall be the higher rate. A "Change Date" is the first business day of each calendar quarter during the term of this Agreement, except that the first such day following the date of this Agreement will not be a Change Date. If the number of payments originally scheduled under this Agreement is more than 60, the amounts of payment which Borrower agrees to make may change if the Rate changes. Whenever the Rate is increased or decreased, in the aggregate by at least a 1% increment relative to the original simple interest rate on this loan, Bank may make a corresponding increase or decrease in the amount

of the scheduled payment for each 1% per annum increment in the Rate relative to the original simple interest rate.

SIMULATION TESTS OF PAYMENT SHOCK AND COLLATERAL SHOCK

The following simulations are based on two hypothetical loans: (1) an $8,000 new car loan with an initial annual percentage rate (APR) of 15 percent; and (2) a second mortgage loan for $15,000 with an initial APR of 15 percent and maturity of 15 years. Were these fixed-rate loans, their respective fixed, monthly payments would be $222.65 and $209.94. It should be noted that these simulations do not contemplate prepayments of these loans, a fairly common occurrence with both types of loan. Only the impact of rate increases are shown, since public concern focuses on that aspect of ARLs.

Consider first the effect of the timing of an increase in the "Index Rate" upon the amount of payment or the number of fixed payments. The longer an instalment contract is outstanding, the smaller the proportion of the sum of the remaining interest payments to the sum of the ensuing payments on principal. It follows that the later an adjustment is made to a ARL, the smaller its effect on the amount or number of payments. The anticipated result is documented in Tables 1 and 2. A 500-basis point (five percentage points) increase in the contract rate raises the monthly payment by 9.17 percent if the increase applies to the second and subsequent payments, but only a 1.23 percent increase if the change occurs after the 42nd month.

TABLE 1. Effect of Timing of Increase in APR on Amount and Number of Fixed Payments on New Automobile Loan*

Increase of 500 Basis Points After Month	Amount of Adjusted Payment	Percent Increase	Number of Added Payments	Percent Increase
0	$243.06	9.17	7.26	15.1
6	240.70	8.11	5.25	10.9
12	238.29	7.02	3.66	7.6
18	235.81	5.91	2.42	5.0
24	233.28	4.77	1.48	2.4
30	230.70	3.62	0.81	1.7
36	228.06	2.43	0.35	0.7
42	225.38	1.23	0.09	0.2

---

*Initial terms: $8,000 loan for 48 months, 15 percent rate and initial monthly payment of $222.65; 500 basis point increase occurring after month shown.

TABLE 2. Effect of Timing of Increase in APR on Amount and number of Fixed Payments of Second Mortgage Loan*

Increase of 500 Basis Points After Month	Amount of Adjusted Payment	Percent Increase	Increase of 500 Basis Points After Month	Number of Added Payments	Percent Increase
0	$263.29	25.41	130	8.04	4.5
6	262.31	24.95	136	5.87	3.3
12	261.29	24.46	142	4.14	2.3
18	260.22	23.95	148	2.79	1.6
24	259.09	23.41	154	1.76	1.0
30	257.92	22.85	160	1.0	0.6
36	256.69	22.27	166	0.48	0.3
42	255.41	21.66	172	0.16	0.1

---

*Initial terms: $15,000 loan for 15 years, 15 percent rate, and initial monthly payment of $209.94; 500 basis point increase occurring after month shown.

The effect of an adjustment to the contract rate is also a function of the maturity of contract. The longer the contract, the greater the ratio of the sum of finance charges to the amount financed. Hence, we would expect that the impact of a given change in the applicable APR would affect the amount or number of monthly payments more on long-term contracts than on short-term contracts. As shown in Table 3, the impact of a 500-basis point change upon the size of the monthly payment is almost five times greater for a five-year loan as for a one-year loan, and the extension of maturities on a five-year loan is over 12 months. Conversion of a 60-month contract to a 72-month contract could expose a lender to considerable collateral risk. The same effect may be noted in Table 4, although the time of adjustment was necessarily at the end of the 130th month in order to avoid negative amortization.

TABLE 3. Effect of 500 Basis Point Increase in APR After First Month of Contract on Amount and Number of Fixed Payments, Given Differences in Original Maturity of New Automobile Loan.*

Initial Maturity (Years)	Amount of Adjusted Payment	Percent Increase	Number of Added Payments (Months)	Percent Increase
1	$739.64	2.43	.30	2.50
2	406.43	4.78	1.35	5.63
3	296.80	7.02	3.43	9.53
4	243.06	9.17	6.89	14.35
5	211.64	11.20	12.38	20.63

---

*Initial terms: $8,000 loan, with maturity shown; initial rate of 15 percent; 500 basis point increase occurring at the end of the first month, effective for the second monthly payment and beyond.

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TABLE 4. Effect of 500 Basis Point Increase in APR After First Month of Contract on Amount and Number of Fixed Payments, Given Differences in Original Maturity of Second Mortgage Loan.*

Initial Maturity (Years)	Amount of Adjusted Payment	Percent Increase	Number of Added Payments (Months)	Percent Increase
10	$289.60	19.67	0.0	+
11	281.54	21.02	.03	+
12	275.27	22.27	.55	+
13	270.33	23.42	1.92	1.23
14	266.41	24.46	4.40	2.61
15	263.29	25.41	8.46	4.70
16	260.78	26.27	14.82	7.72
17	258.76	27.05	24.89	12.20
18	257.13	27.77	41.72	19.31
19	255.81	28.40	74.89	32.85
20	254.74	28.97	252.11	105.05

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*Initial terms: $15,000 loan, with maturity shown; initial rate of 15 percent; 500 basis point increase occurring at the end of the 130th month, effective for the 131st payment and beyond.

+Less than .005 percent.

It should come as no surprise that the amount of rate increase is directly associated with higher or more monthly payments. Tables 5 and 6 show "worst cases" in that the rate increase is assumed to occur effective with the second monthly payment.

TABLE 5. Effect of Amount of Increase in APR After First Month of Contract on Amount and Number of Fixed Payments on New Automobile Loan.*

Adjusted Rate (%)	Amount of Adjusted Payment	Percent Increase	Number of Added Payments	Percent Increase
16	$226.65	1.76	1.18	2.46
17	230.69	3.61	2.45	5.10
18	234.77	5.44	3.81	7.94
19	238.89	7.29	5.29	11.02
20	243.06	9.17	6.89	14.35
21	247.26	11.05	8.65	18.02
22	251.50	12.96	10.58	22.04
23	255.78	14.88	12.71	26.48
24	260.09	16.82	15.10	31.46
25	264.45	18.77	17.79	37.06

---

*Initial terms: $8,000 loan for 48 months; 15 percent initial rate, and initial monthly payment of $222.65; rate increase occurring at end of first month, effective for second monthly payment and beyond.

TABLE 6. Effect of Amount of Increase in APR After First Month of Contract on Amount and Number of Fixed Payments on Second Mortgage Loan.*

Adjusted Rate (%)	Amount of Adjusted Payment	Percent Increase	Number of Added Payments	Percent Increase
16	$220.27	4.92	1.42	0.79
17	230.79	9.93	2.96	1.64
18	241.47	15.02	4.63	2.57
19	252.30	20.18	6.45	3.58
20	263.29	25.41	8.46	4.70
21	274.40	30.70	10.68	5.93
22	285.64	36.06	13.17	7.32
23	297.00	41.47	15.97	8.87
24	308.46	46.93	19.18	10.65
25	320.02	52.43	22.91	12.73

---

*Initial terms: $15,000 loan for 15 years; 15 percent initial rate, and initial monthly payment of $209.96; rate increase occurring at end of first month, effective for second monthly payment and beyond.

The effect of an increase in the APR is also a function of the initial rate on a contract. Tables 7 and 8 demonstrate both the effects of the timing of an increase and the initial rate on the automobile contract. Here we concentrate on the influence of initial rates ranging from ten percent to 25 percent; that is, the increases in the amount (Table 7) and number (Table 8) of payments as shown in the rows of the two tables. The higher the initial rate, the less a 500-basis point increase is adding to the total rate charges. Hence, we would expect to find a diminishing effect on the amount of monthly payments as the initial rate rises from ten percent to 25 percent. Happily, that is the result we discover in this table, as well as in Table 9, which demonstrates the effects on the amounts of monthly payments if the APR on a second mortgage loan is increased by 500 basis points.

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TABLE 7. Effect of 500 Basis Point Increase in APR on Amount of Payments, Given Differences in Original APR on New Automobile Loan*

INITIAL ANNUAL PERCENTAGE RATE (APR)

Increase of 500 Basis Points After Month	10%		15%		20%		25%	
	Amount of Adj. Py't	Percent Increase	Amount of Adj. Py't	Percent Increase	Amount of Adj. Py't	Percent Increase	Amount of Adj. Py't	Percent Increase
0	222.26	9.54	243.06	9.17	264.87	8.80	287.66	8.44
6	219.94	8.40	240.70	8.11	262.50	7.83	285.29	7.55
12	217.59	7.24	238.29	7.02	260.03	6.81	282.79	6.61
18	215.20	6.06	235.81	5.91	257.48	5.77	280.17	5.62
24	212.79	4.87	233.25	4.77	254.84	4.68	277.42	4.58
30	210.36	3.68	230.70	3.62	252.11	3.56	274.55	3.50
36	207.89	2.46	228.06	2.43	249.30	2.41	271.57	2.38
42	205.41	1.24	225.38	1.23	246.41	1.22	268.47	1.21

*Initial terms: $8,000 loan for 48 months, with initial APRs as shown; 500 basis point increase occuring after month shown.

TABLE 8. Effect of 500 Basis Point Increase in APR on Number of Fixed Payments, Given Differences in Original APR on New Automobile Loans.*

Initial Annual Percentage Rate (APR)

Increase of 500 Basis Points After Month	10%		15%		20%		25%	
	No. of Added Py'ts	Percent Increase	No. of Added Py'ts	Percent Increase	No. of Added Py'ts	Percent Increase	No. of Added Py'ts	Percent Increase
0	6.66	13.88	7.26	15.13	7.97	16.60	8.79	18.31
6	4.88	10.17	5.25	10.97	5.66	11.79	6.12	12.75
12	3.45	7.19	3.66	7.63	3.88	8.08	4.13	8.60
18	2.31	4.81	2.42	5.04	2.54	5.29	2.66	5.54
24	1.43	2.98	1.48	3.08	1.54	3.21	1.59	3.31
30	0.79	1.65	0.81	1.69	0.83	1.73	0.85	1.77
36	0.35	0.70	0.35	0.70	0.36	0.73	0.36	0.73
42	0.09	+	0.09	+	0.09	+	0.09	+

*Initial terms: $8,000 loan for 48 months, with initial APRs as shown; 500 basis point increase occuring after month show.

+Less than .005 percent

TABLE 9. Effect of 500 Basis Point Increase in APR on Amount of Payments, Given Differences in Original APR on Second Mortgage Loan.*

Initial Annual Percentage Rate (APR)

Increase of 500 Basis Points After Month	10%		15%		20%		25%	
	Amount of Adj. Py't	Percent Increase	Amount of Adj. Py't	Percent Increase	Amount of Adj. Py't	Percent Increase	Amount of Adj. Py't	Percent Increase
0	209.75	30.15	263.29	25.41	320.21	21.55	379.37	18.43
6	208.57	29.39	262.31	24.95	319.46	21.26	378.83	18.26
12	207.36	28.64	261.29	24.46	318.65	20.96	378.23	18.08
18	206.12	27.87	260.22	23.95	317.79	20.63	377.58	17.87
24	204.85	27.09	259.09	23.41	316.87	20.28	376.87	17.65
30	203.55	26.28	257.92	22.85	315.88	19.91	376.09	17.41
36	202.21	25.45	256.69	22.27	314.83	19.51	375.23	17.14
42	200.84	24.60	255.41	21.66	313.71	19.08	374.30	16.85

*Initial terms: $15,000 loan for 15 years, with initial APRs as shown; 500 basis point increase occuring after month shown.

However, if the number of payments are adjusted, instead of the amount of payment, the percentage increase in the number of payments is higher, the greater the initial rate charged on the contract (Table 8). Unless the increase in the APR occurs early in the contract, the percentage increase in the number of payments is not great and should have only slight effect on the ratio of unpaid principal balance to the market value of and collateral securing the loan.

Finally, we examine the increase in APR necessary to generate negative amortization, given an increase at various points in time (Table 10). The example, of course, applies only to arrangements where the number of fixed payments increase in response to an increase in the APR. The table demonstrates that both the timing of the increase and the original maturity of the loan significantly influence the likelihood of negative amortization. In the case of the specified automobile loan, negative amortization is very unlikely. Even if the rate were to increase by 18 percentage points after the first month (making a total rate of 33 percent), negative amortization would not occur. The later in the contract life the adjustment occurs, the less likely negative amortization becomes.

TABLE 10. Increase in Finance Rate for Negative Amortization of New Automobile Loan and Second Mortgage Loan,* Given a Permanent Increase in APR at Different Point in Time.

Increase In APR After Month	Required Percentage Point Increase In APR for Negative Amortization Throughout Remaining Term of Loan	
	Automobile Loan	Second Mortgage Loan
0	18.92	1.83
6	21.90	1.96
12	26.60	2.13
18	33.22	2.32
24	43.19	2.53
30	59.87	2.76

*Initial terms for auto loan: $8,000 loan for 48 months, 15 percent rate, and monthly payments of $222.65. Initial terms of second mortgage loan: $15,000 loan for 15 years, 15 percent rate, and monthly payments of $209.94. Increase in APR assumed to occur after month shown.

The same protection from negative amortization does not characterize the 15-year second mortgage loan. Were the effective rate to rise after the sixth month by two percentage points to 17 percent, negative amortization would occur. It is this danger that has apparently caused most lenders to require an adjustment in the amount of monthly payment on long-term ARLs. However, as shown in Table 6, consumers and lenders are still exposed to potential payment shock the greater is the increase in the APR and the earlier in the contract life that it occurs (Table 2).

SUMMARY AND CONCLUSIONS

The potential for payment shock or collateral shock on four- and five-year automobile loans appears relatively slight for consumers. Consequently, lenders offering these loans are

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probably not adding much credit risk for the interest-rate risk transferred in part to consumers. If consumers appear to be reasonably aware of the potential adjustments in their ARL contracts on automobiles, there appears to be little justification for government intervention in this market.

In contrast, there is an opportunity for considerable payment shock in the case of 15-year adjustable-rate second mortgages. However, this conclusion relates only to the possibility, not to the likelihood. To judge the likelihood of payment shock, it is necessary to test what would have happened over the period 1974-1984 had 15-year ARLs been written monthly, based on various indices. This period is appropriate because it includes the most rapid increases in interest rates in recent history, as well as widely varying interest rates. To the extent that these simulations reveal a potential for payment shock, it may be thought desirable to limit the potential fluctuations in consumers' monthly payments as a "consumer protection" measure. However, we must recognize that such regulatory limits also cause lenders to bear a higher portion of the interest-rate risk, thereby leading them to increase the initial APR on adjustable-rate loans. As a result, those consumers who would have preferred to bear the risk in return for a lower APR are forced to take what is for them, a less-desirable contract.

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COMMENTS ON PAPERS IN RESEARCH SESSION ON CONSUMER CREDIT

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ABSTRACT

These remarks will analyze the following research papers:

oDeLuca, Barbara M. and Jean S. Bowers, "Determinants of Household Debt Repayment-Income Ratio".
oEastwood, David B. and Cynthia Ann Sencindiver, "A Re-Examination of Consumer Credit Growth".
oJohnson, Robert W. and James R. Fain, "Adjustable-Rate Consumer Loans: A Trade-Off".

INTRODUCTION

Within the household, debt formation and asset accumulation are important and usually simultaneous financial activities. These activities form a financial portfolio which the household manages. In the management of its portfolio many issues ensue both for the household and the economy. The authors of these research papers have chosen several important topics in the area of consumer credit; namely, growth, credit quality and new financing mechanisms.

As several of the papers mentioned, consumer credit is utilized widely by households and represents a sizeable force in our economy. Using 1983 aggregate statistics, the total outstanding installment credit was one-third the volume of the total outstanding residential mortgage credit. A closer examination of the consumer credit market shows that automobile credit continues to retain the largest segment of this market while revolving credit has experienced the most rapid growth in recent years. (Table 1)

CONSUMER CREDIT GROWTH

The Eastwood and Sencindiver paper entitled, "A Re-Examination of Consumer Credit Growth" succeeds in offering to the reader a macro and long-run perspective of consumer installment credit growth. As the authors mention, credit growth frequently raises concerns about the effects of repayment on consumption, bankruptcies and savings levels as well as the ability of the consumers to repay as debt levels increase. The authors slightly adapt a previously developed growth model by Enthoven and utilize more recent data and a longer time frame to test this model.

While the authors succeed in showing that the long-run consumer credit growth does not produce fluctuations in economic activity and that on average occasional surges in growth are offset by periods of lower growth, the growth model's predictions are not always in synch with actual debt income ratios. Other factors, such as the population's age distribution, are not included in the model and are discussed as possible influences on these differences. This may indicate the need for further revision of the growth model utilized in this analysis. It may also be the case that the examination of changes in overall consumer credit growth procrastinates the examination of other changes in specific areas of the consumer credit market such as the growth of revolving credit and the dramatic changes in the parameters of consumer credit contracts such as longer terms and adjustable interest rates.

CONSUMER CREDIT QUALITY

The DeLuca and Bowers paper entitled, "Determinants of Household Debt Repayment-Income Ratio" attempts to explore the household characteristics associated with the proportion of income devoted to consumer credit payments. As the authors note, a twenty percent rule of thumb is pervasively used with little regard for the vast differences of factors among households. Using recent cross-sectional data, the authors estimate two different multivariate regression models, one for dual earner households and a second for female-headed households.

The specification of the research models utilized in this paper seem limited for two reasons. First, the exclusion of mortgage debt from the model prevented any examination of the relationship between consumer debt and mortgage debt. This is unfortunate since there are quite obviously connections which have could be modeled. A second specification concern is the lack of justification for using different independent variables for dual earner and female-headed households. Different models may indeed be needed, however, a full discussion of these differences would have assisted the reader.

A third weakness of this analysis relates to the methodology used which consecutive reestimated the model on the same data source. This procedure hampers the validity of the F tests for the regression coefficients and confuses subsequent results.

The authors have chosen an interesting area of consumer credit research and have contributed some empirical findings which need to be further substantiated by future research.

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[1] Consumer Economics and Housing, Associate Professor

NEW FINANCING MECHANISMS FOR CONSUMER CREDIT INSTRUMENTS

The Johnson and Fain paper entitled, "Adjustable Rate Consumer Loans: A Trade-Off" offers a illustration of the effects of the adjustable interest rate feature for automobile loans and second mortgages. These effects relate to both desire of consumers to use and the creditor's desire to offer such credit instruments. The authors trace the history of ARL's and simulate the payment shock for the consumer and the collateral shock for the lender under various changes in the interest rate in relation to the timing of such a change and the maturity of the contract. The authors also illustrate the "worst case" scenario and the increase in APR necessary to generate negative amortization. While the authors are meticulous in their illustrations the paper seems to fall short in its summary and conclusions. Even the authors suggest the need to test the effect of payment shock and collateral shock for 15 year ARL's by using the actual interest rate changes between 1974-1984.

REFERENCES

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TABLE 1

VOLUME OF CONSUMER CREDIT BY MAJOR TYPES[1]

Type of Credit	Year 1975	1978	1980	1981	1982	1983	Percentage Increase in Amounts Outstanding From 1975 to 1983
Automobile	55,879[2] 3,007[3]	101,647 18,736	116,838 447	125,331 8,495	130,227 4,898	142,449 n.a.[6]	154.9%[5]
Revolving	9,501 1,220	48,309 9,035	58,352 1,415	62,819 4,467	67,184 4,365	80,823 n.a.	750.7
Mobile Home	14,423 -195	15,235 286	17,322 483	18,373 1,049	18,988 609	23,680 n.a.	64.2
Other	82,342[4] 3,458	108,454 15,022	120,960 -927	125,174 4,206	128,399 3,224	149,130 n.a.	81.1
TOTALS	164,955 7,504	273,645 43,079	313,472 1,448	331,697 18,217	344,798 13,096	396,082 n.a.	140.1

[1] **Source: Federal Reserve Bulletin, Board of Governors of the Federal Reserve System, June 1978, p. A42; June 1981, p. A40; and July 1983, p. A42; and June 1984, p. 38.**

[2] **amounts outstanding in millions of dollars.**

[3] **net changes in millions of dollars equal extensions seasonally adjusted less liquidations seasonally adjusted.**

[4] **home improvement loans are included in "Other" category for 1975 even though published separately for that year.**

[5] **calculated by author.**

[6] **not yet available.**

AN EMPLOYMENT OPPORTUNITY SURVEY:
RESULTS AND APPLICATIONS

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ABSTRACT

The purposes of this study were to assess employment opportunities for graduates in Family and Consumer Studies at the University of Saskatchewan and to use information obtained from employers to aid in curriculum revision, and promote a new field placement program. Results proved most useful in achieving these objectives and provided useful information for student career guidance. The paper also compares results from a similar study reported at the 1983 annual conference of the American Council on Consumers Interests.

INTRODUCTION

At the 1983 annual meeting of the American Council on Consumer Interests, the paper "Ohio Employment Opportunities for Consumer Service Graduates" was presented by Dr. Carol Sensbach [1]. The Ohio survey identified organizations which would or did employ consumer service personnel and the professional and personal qualifications desired [1, p.347]. It was Dr. Sensbach's presentation that promped the present research. While sharing many of the methods and objectives of the Ohio survey, this work was designed also to stimulate employers interest in a recently developed field placement program by the College of Home Economics at the University of Saskatchewan (Canada) where the research was conducted. An additional objective of the research was to use information from employers' assessment of the curriculum for purposes of student advising and curriculum revision. Not entirely coincidentally, the College of Home Economics was in the midst of reviewing curricula questions at the time of the employment survey. A few of the specific questions the survey was designed to answer include:

- -What relative importance do Consumer Studies employers place on natural versus social sciences?
- -How important is a College of Home Economics breadth requirement to Consumer Studies employers?
- -What commonality in curriculum (if any) do employers view as necessary or highly desirable in Consumer Studies graduates?

To address these questions among others, permission was obtained from the authors of the Ohio survey to utilize their questionnaire. What follows is a description of the Saskatchewan methodology, survey results, and conclusions.

METHODOLOGY

The format of the Ohio questionnaire (with some modifications) served as a benchmark for the Saskatchewan survey. The sampling frame comprised employers of recent College graduates, businesses identified by the Consumer Studies faculty as potential employers and relevant government agencies. A sample four year program was included with each questionnaire to help insure the validity of employers' responses to curricula questions. The questionnaires were mailed in the third week of July 1983 with follow-up postcards sent out a week-and-a-half later. In total 361 questionnaires were sent out. Twelve surveys were returned unopened by the Postal Service. In total 133 questionnaires reached their destination and were returned for a response rate of 38 percent. Thirty-seven replies were either unanswered or unusable for a final sample size of 96. The Ohio study sent out questionnaires to 255 employers and recorded a 35 percent response rate. Nineteen percent of their questionnaires were answered incompletely and therefore were not included in their analysis (final n=48) [1, p.348]. It seems then that the response rate of this survey is comparable to surveys of its kind.

RESULTS

Although this research and the Ohio research both surveyed potential employers of consumer studies graduates, the types of organization responding to the surveys were systematically different. In the subset of respondents in the Ohio survey whose responses were complete enough to include in the final analysis, 23 percent were affiliated with food-related organizations [1, p.348]. Utility companies and state agencies comprised 15 and 13 percent of the respondents. In the Saskatchewan survey, responses from public and private social service agencies comprised 51 percent of the sample. Responses from representatives of financial and government institutions comprised 19 and 17 percent of the final sample, respectively. Because of the difference in underlying populations, quite predictable differences between the two survey results arise. Nevertheless, consistent trends still emerge.

The Saskatchewan employers' assessments of course work importance are presented in Table 1. Financial management, family studies, and nutrition were the three Home Economics subjects ranked as most important by employers. These results may be compared with the Ohio study which reported consumer economics, food science, and food management as the three most important Home Economics courses. Interestingly, although food science and food management ranked higher in the Ohio survey, the mean rating ascribed the courses by employers from both surveys was quite

TABLE 1. Importance of Coursework to Employment.

Courses	Importance* Overall Rank by Importance	Mean Rating
Home Economics Courses		
Financial Management	2	3.7
Family Studies	8	3.3
Nutrition	9	3.3
Child Development	11	3.0
Consumer Behavior	15	2.8
Family Law	16	2.8
Food Science Management	19	2.7
Food Science	21	2.7
Housing	22	2.5
Energy Economics	26	2.1
Clothing & Textiles	27	2.0
Interior Design	29	1.8
Business Courses		
Management	4	3.6
Finance	10	3.2
Accounting	12	3.0
Marketing	13	2.9
Public Administration	14	2.9
Economics	17	2.7
Business Law	20	2.7
Communications Courses		
Interpersonal Communications	1	4.4
Writing	3	3.6
Public Speaking	5	3.4
TV & Radio Production	25	2.3
Science Related Courses		
Biology	28	1.9
Chemistry	30	1.7
Physics	31	1.6
Other Courses		
Psychology	6	3.4
Sociology	7	3.3
Statistics	18	2.7
Research Methods	23	2.5
Computer Science	24	2.4

*1=Of No Importance
5=Of Extreme Importance

n=96

consistent (Ohio survey reporting means of 2.9 and 2.8, respectively on the 1-5 scale).

The importance ascribed course work by Saskatchewan employers in the area of business was also quite similar to the Ohio results. The only course whose importance differed by as much as one point (on the 1-5 scale) across the two surveys was marketing, with Ohio employers ascribing an average rating of importance of 3.9. This result is, however, consistent with the systematically different natures of the underlying populations.

What clearly emerges in both surveys is the importance that employers place on communication skills. Interpersonal communication skills ranked first in importance in the Saskatchewan survey. Less importance was ascribed by employers in both surveys to communication skills in radio and TV production.

Table 2 presents employers' ranking of specific employee characteristics. The results are strikingly similar to those reported in the Ohio survey. Ability to work with people, speaking ability, leadership ability, and writing ability rank 1,2,3, and 4 in both employers' evaluations.

TABLE 2. Characteristics Important to Employment.

Characteristics	Importance Extremely %	Little or None %
Ability to Work With People	87.5	0
Speaking Ability	56.3	1.2
Leadership Ability	55.2	1.2
Writing Ability	37.5	3.5
Willingness to Travel	19.8	33.7
Business Experience	13.5	30.1
Government Experience	9.4	34.7
Above Average Grades	9.4	30.5
Consumer Affairs Experience	7.3	35.4

The Saskatchewan survey, of course, was also designed to go beyond the objectives set out in the Ohio survey. Specifically, the College was interested in stimulating interest in a recently developed field placement program and ascertaining how potential employers would view such experience at the point of hiring. All employers responding to our survey expressed an interest in obtaining more information about our field placement program. Follow-up letters were sent explaining the program, and in the 1983-84 school year actual placements were arranged as a result. The College is now in the fortunate position of having an excess supply of potential field placements. When questioned directly about the consideration the employer would give to unpaid work experience (like the field placement program), 71.3 percent reported they would give equal consideration to paid and unpaid experience. The remaining 28.7 percent reported that they would give more consideration to paid over volunteer experience.

Results were also used to aid the College in curriculum revision. Specifically, the College was considering reducing the units of natural science requirements (from requiring a full year of both biology and chemistry) and allowing students to pursue studies in a particular area of the social sciences. As is shown in Table 1, it appeared that such a change in the curriculum would not jeopardize students' qualifications for entry level positions. Biology, chemistry, and physics ranked lowest of all course requirements. Further, psychology, sociology, and economics (the social sciences whose required credits were to increase) ranked 6, 7, and 17 respectively, indicating that increasing such course requirements could enhance students' entry level qualifications.

The College was considering also whether it should reduce students' breadth requirement for courses taken within the College but outside their immediate area of study (for example, foods, nutrition, housing, design, textiles, and clothing). What became obvious from the survey results was that no employer deemed necessary course requirements from all areas in the College; specific employers valued different backgrounds. This result led to the conclusion that the College breadth requirement could be reduced by allowing students to select a few (rather than all) courses from the range of offerings.

If one were to identify a single area of paramount importance to employers, it would certainly be communications. The curriculum requirements in this are consistently valued more highly than those in any other area. Historically, the College of Home Economics has taught several communications courses, but at least in part as a result of this survey, communications has now become part of the College core coursework requirements.

The final application of these results has been to student program planning. For students who are unsure of their future career goals these results help us to plan a program increasing their "flexibility", or minimizing their losses until they are ready to declare their interests. For students who have clear career goals, these results serve as useful program guidelines for the selection of elective credits. Survey results have been tabulated by employer type, and distributed to advisers for dissemination to students.

CONCLUSIONS

The results of the employment survey reported in this paper are of interest for several reasons. Firstly, they compare interestingly with the research done by Bailey et al. in 1983. Quite similar trends are evident across surveys, most notably in the areas of communication coursework requirements and employee characteristics. Survey results have also proven useful in assessing potential changes to the College curriculum, and in student advising. Further, contacts made as a result of the survey have increased awareness among employers in the province of our program and field placement option.

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COURSE REQUIREMENTS, JOB RESPONSIBILITIES, AND COMPENSATION FOR FINANCIAL COUNSELORS: THE INDUSTRY VIEW

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ABSTRACT

A number of schools have or are developing concentrations in financial counseling. A number of academics have presented their thoughts on how these programs should be structured. However, the views of financial counseling agency administrators as to need for a four-year degree, course requirements, job responsibilities, and compensation of counselors was not known. Thus, a survey of these administrators was undertaken. They have a preference for college graduates with special emphasis in counseling coursework. However, salaries at best are on the low end of college graduates' expectations.

INTRODUCTION

In the early 1970s several universities introduced a course in Family Financial Counseling (i.e., University of California- Long Beach, Purdue University) [6]. In the decade since that introduction, financial counseling courses have become an integral part of the curriculum in a number of Family Economics programs throughout the United States and Canada. A number of colleges have developed and now offer majors in family financial counseling and/or planning [8].

Many of these programs were developed for the reason expressed by Edwards for the development of the program at Brigham Young University. The faculty recognized a need to develop a major that provided a career focus for students preparing them to apply family financial management knowledge in a professional practice setting as opposed to simply teaching students about family financial management [1].

As academicians continue to develop curriculum in the area of family financial counseling they need to further define (1) the education requirements necessary for financial counselors as perceived by the profession in relation to specific degree requirements, type of major, and coursework; (2) the functions performed by financial counselors at entry level and how those functions change during the first few years; (3) the renumeration of financial counselors in relation to the education demanded of the counselor. While researchers have attempted to provide information on these topics there has been little research on the view of financial counseling administrators [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13]. Such background information will provide those academicians planning majors and students contemplating careers in financial counseling information about the educational requirements and the job responsibilities of the financial counselor. The information will also be valuable to the financial counseling industry. With the knowledge of what other agencies are requiring of financial counselors and paying those counselors they may better evaluate their own organization and staffing compared to the norms for similar agencies.

THE SURVEY

A mail survey was sent to 146 consumer credit counseling agencies in February 1984. The CCCS Directory of consumer credit counseling services (CCCS) associated with the National Foundation for Consumer Credit (NFCC) was used for the mailing. A census rather than a sample was used. In addition three major not-for-profit firms not associated with the NFCC were added to the list. A sixty-four percent response rate (94 useable returns) was achieved with 39 states (78% of all states) represented in the study.

RESULTS

This section is divided into three parts. First, the education requirements for entry level counselors are discussed. Next, the typical first year job responsibilities are presented. Finally, an analysis of salaries for counselors both in their first year of work and in their fifth year is presented.

Educational Background

The following discussion of educational needs for counselors is divided into desirability of various degrees, majors, courses, and internships. Table 1 contains the percentages supporting the following discussion.

Degree - Over a quarter of the responding agencies stated that a bachelor's degree was a requirement for being a credit counselor. Another third thought it was desirable. It is interesting to note that when looking at the educational background of the counselors who were hired in 1983, the agencies' actions are reflective of this desire. Sixty percent of the hires for 1983 had college degrees, which is very comparable to the sixty-five percent who thought a college degree was required or desirable.

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[1] Visiting Associate Professors

TABLE 1

Educational Background Deemed Required or Desirable for Entry Level Counselors

	Required	Desirable	Not Necessary
Degree			
Associate	23%	30	47
Bachelor's	28%	37	35
Master's	0%	24	76
Major			
Financial Planning/Counseling: Other Than Business Major	9%	70	21
Financial Planning/Counseling: Business Major	5%	64	31
Some Other Business Major	1%	40	59
Courses			
Credit	31%	55	14
Personal/Family Finance	29%	61	10
General Counseling Methods	28%	59	13
Financial Counseling Methods	24%	63	13
Financial Planning Methods	20%	62	18
Personal Psychology	15%	61	24
Business Finance	10%	50	40
Taxation	3%	31	66
Real Estate	3%	34	63
Personnel Management	3%	34	63
Insurance	2%	39	59
Retirement Planning	2%	35	63
Investments	1%	37	62
Employee Benefits	1%	29	70
Estate Planning	1%	26	73
Computer Programming	0%	41	59
Student Internships			
Course for Credit	8%	53	39
One Semester Full-Time	5%	42	53

Major - Few agencies believed a major in financial counseling was a job requirement. But around two-thirds of them thought some type of major in financial counseling was desirable. There was a slight preference for the financial counseling major who graduated from a program outside of the school of business (70 versus 64 percent).

Courses - Over three-quarters of the sample thought 5 courses should be requirements or would be desirable for entry level counselors. The five are credit, personal and family finance, general counseling methods, financial counseling methods, and financial planning methods. When only considering required courses, the first three are of about equal importance; about 30 percent of the agencies thought they should be required. The last two courses were considered important by a quarter to a fifth of the respondents.

Other courses that should be considered in a counseling major are psychology and business finance, since a majority of the respondents stated these courses were also desirable. Generally, courses in specific areas of financial planning and counseling such as insurance, taxation, real estate, employee benefits, along with others, were considered unnecessary by a majority of the agencies. Interestingly, although no one thought computer programming should be a required course, a near majority thought it was desirable.

Internships - A majority of the agencies thought some type of internship was advisable. About 60 percent thought a course for credit was all that was necessary, while slightly less than half thought a one semester full-time internship was necessary or desirable. Interestingly, very few (5 to 8 percent) viewed an internship as a requirement for a position.

Job Responsibilities

To borrow a metaphor, the entry level counselor must be prepared to hit the ground running. Virtually all agencies expected the new hire to perform all the major counseling duties in the first year of employment (Table 2). The counselors will have both client and creditor contact in the first year. They will also be expected to develop and revise client plans. However, the new hires at this point will not have to worry about managerial responsibilities or computer programming for a few years. Slightly less than a majority of the agencies think the counselor will never do computer programming. And it isn't until the third year that most expect the counselor to take on agency management responsibilities.

TABLE 2

Job Responsibilities of Entry Level Counselor

Year in Which the Counselor Would do the Following Activities:	First Year	Second Year	Third Year	Not at All
Developing Proration Programs	98%	2	—	—
Identifying Financial Problems	98%	2	—	--
Client Interviewing	98%	2	—	--
Contacts with Creditors	97%	3	--	--
Handling Account Problems Not Involving Client Contact	96%	4.	—	--
Reviewing Plans with Client	96%	4	—	--
Updating Client Plans	94%	6	—	--
Computer Programming	24%	20	11	45
Agency Managerial Responsibilities	16%	22	43	19

Salary

How much will these well-trained, experienced, college-educated counselors make their first year? Not much. Overall, in 1984, three-quarters of the agencies expect to pay entry level hires between 10 and 15 thousand dollars (Table 3). This percentage does not change for those agencies that require or think a bachelor's degree is desirable. And things don't improve over time. Five years after being hired, most counselors can expect to make less than $20,000 a year, even if they have a college degree.

Salaries do vary by geographic area. Counselors in the south and west can expect to earn the lowest salaries while counselors in the midwest are more likely to earn a salary in the higher bracket of between $15,000 and $20,000. Finally, starting salaries in the east and mountain west are most likely to earn the modal salary of $10,000 to $15,000. The above situation remains approximately the same after five years except in the west where it appears raises may be higher since this is the only region where counselors might expect to earn incomes of $30,000 or more. Care should be taken with this analysis because of small cell sizes.

TABLE 3

Compensation of Counselors

A. Planned Salary for 1984

	Percent (n=99)
Less than $10,000	15
$10,000 - 14,999	73
$15,000 - 19,999	12
	100

B. Planned Salary in 1989

Less than $20,000	69
$20,000 - 29,999	28
$30,000 and over	3
	100

C. Planned Salary According to Need for a Bachelor's Degree

Degree is...	Required	Desirable	Not Necessary
Salary 1984			
Less than $10,000	11%	8%	23%
$10,000 - 14,999	74	78	68
$15,000 - 19,999	15	14	9
	100	100	100

X^2 not possible due to small cell sizes.

	Required	Desirable	Not Necessary
Salary 1989			
Less than $20,000	74%	56%	82%
$20,000 - 29,999	26	44	9
$30,000 and over	0	0	9
	100	100	100

X^2 not possible due to null cells.

D. Planned Salary According to Geographic Location of Agency.

	East	South	Midwest	Mtn. West	West
Salary 1984					
Less than $10,000	5%	23%	12%	—	22%
$10,000 - 14,999	86	67	65	100%	67
$15,000 - 19,999	9	10	23	--	11
	100	100	100	100	100

X^2 not possible due to null cells.

	East	South	Midwest	Mtn. West	West
Salary 1989					
Less than $20,000	76%	87%	65%	57%	56%
$20,000 - 29,999	24	13	35	43	33
$30,000 and over	--	--	--	--	11
	100	100	100	100	100

X^2 not possible due to null cells.

IMPLICATIONS

Academicians should find strong support for the development of financial counseling programs from the financial counseling industry. Approximately two-thirds of the respondents reported they thought some type of major in financial counseling was desirable. Of significance to the family finance educator was the preference for financial counseling majors from a school other than business administration. This may be due to the positive attitude of many practitioners to graduates of family economics programs. This study did not look at reasons for opinions and therefore we can only speculate as to the motive behind the answers. Another explanation may be inferred from the strong preference for counseling education. Because the respondents were not asked to specifically identify where they preferred to see the financial planning/counseling program located any number of university programs might be preferred as long as the majors had counseling courses as part of the requirements.

Of some concern is the 40 percent of new hires in 1983 who did not hold a college degree. Since 35 percent of the agencies reported a college degree was not necessary it may be sometime before these agency administrators are ready to upgrade the educational requirements of new hires. Those responding that a college degree is not a requirement may be reflecting their knowledge of salary discrepencies between what new college graduates plan to earn and what the financial counseling agencies currently pay. The data support this conclusion with a quarter of those reporting that a college education is not necessary indicating that beginning salaries are less than $10,000 a year.

Of significance to those planning new programs was the identification of five courses that should be required for financial counselors. Two of these are subject specific (family finance, consumer credit) while the other three (counseling methods) provide methods training. When considering both required and desirable courses business finance appears as a third subject specific course respondents would like in the educational background of their counselors. For whatever reason most of them felt there was no need for the counselor to take subject specific courses such as insurance, taxation, investments, etc. Program planners would nevertheless want to remember that the range of tasks performed by the counselor would suggest that they are likely to encounter clients with problems in these other areas. It is possible that the CCCS do not perceive the problems of clients in these areas as serious as their credit problems.

Conversely, it appears the respondents do recognize a need for in-depth training in the area of counseling methods. Not only were three of the five recommended courses in this area but a majority of the respondents felt psychology courses would be desirable. Although few of the respondents would require a student internship prior to employment most felt such a course would be desirable. Thus, it appears that those interested in developing financial counseling programs would want to develop counseling specific courses that culminate in an internship for their students. This is also supported by the fact counselors will have to become actively engaged in all phases of financial counseling during the first year of employment.

In conclusion, the industry wants college graduates of programs that give students background in counseling and credit. At this point most agencies do not want students who are trained in financial planning. However, there is a problem with low salaries, both starting and five years later. If programs and later agencies are going to attract competent students and employees the pay will have to be commensurate with the job requirements.

Increasing productivity through the use of computer programs, standardized procedures, and well trained employees may reduce the need for the total number of counselors but increase the pay of the ones hired.

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CONSUMER AFFAIRS: AN EMERGING PROFESSION

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ABSTRACT

Consumerism, or the consumer movement has created a new consumer career-consumer affairs. Persons with various backgrounds are recruited to fill these new, ill-defined responsibilities. A better understanding of the functions of consumer affairs and of the skill, concepts and understanding needed to accomplish the demands and opportunities of consumer affairs is the subject of this report.

One of the integral aspects in the development of the consumer movement and consumerism in the United States has been the emergence of a new voice in business and government - that of the consumer affairs professional. As "necessity is the mother of invention" so the field of consumer affairs has emerged in response to a need for consumer representation in both corporate and governmental operation and decision making.

The advocacy and activism of the early days of the consumer movement has calmed down considerably and become much more sophisticated. Evidence of considerable success of the early consumer leaders is manifest in the proliferation of state and municipal consumer agencies which have been born as a result. Further evidence is visible in the appointment of consumer advocates to responsible positions in the Federal Government.

In business and industry it was nearly impossible to find a consumer affairs department as late as 1970. Perhaps a customer relations or customer complaint department, but hardly ever were we able to identify a consumer affairs department. Now over 1,000 corporations have consumer affairs functions and SOCAP (The Society for Consumer Affairs Professionals in Business) boasts a membership of 1,500 members.

As this new consumer affairs profession has come into existence almost over night, persons involved have been recruited from an assortment of backgrounds, experiences and interests. A consumer affairs professional may have been a public relations expert, a consumer complaint handler, a home economist, a lawyer, a marketing specialist, a journalist, an advertising specialist, a political supporter, a secretary, or just a friend of the vice president in charge. The consequences of this "topsy" kind of growth has been a "poorly defined profession" can and needs to be. But happily there are signs that this need is being recognized and that some actions are being taken to improve the situation.

Leaders in the field are now openly discussing "professional development" programs. Both governmental consumerists and corporate consumer affairs professionals have banded together in organizations which have as one of their goals "professional development." Academia is beginning to respond to the need by developing new programs through continuing education workshops, conferences and seminars. At Oklahoma State University we have developed not only an extensive program, but also resident graduate programs leading to a master's or Ph.D. degree in Consumer Resources, designed for professionals in or preparing to enter the field.

In attempting to identify just what it is that a consumer affairs department does, it becomes apparent that many of the programs in the corporate sector have resulted in nothing more than a name change or redesigned customer service effort. We realize that consumer affairs must serve the corporate interests in keeping the customers happy, but that seems to be the least important activity which should be considered a consumer oriented effort. The ultimate contribution of consumer affairs in business is, at least in our opinion, an open, honest and acceptable representation of the consumer interest in all levels of corporate decision-making and operation.

Individuals who identify with the consumer affairs field perform a variety of functions and have vastly different backgrounds in terms of education and experience. These various job functions create a wide range of responsibilities which can be grouped or categorized as follows:

Communications relative to complaints and inquiries

Development and delivery of educational information programs

Analyzing consumer views and legislative trends which relate to the parent company

Presenting the consumer view to management and to all levels of marketing

A continual exchange with external resources in government, business, labor and education.

Many professionals have specific responsibilities in one or more of the above categories while others are involved in all categories or perhaps manage a full-fledged consumer affairs department. Regardless of the scope of the individual assignment, in our opinion there exists a set of understandings and goals which are necessary for efficient and effective job performance. These include:

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[1] Professor, Consumer Studies
Director, Center for Consumer Services
Director, National Consumer Affairs Internship

An understanding of the nature and scope of consumerism

Major consumer issues including consumer legislation

The leadership and objectives of the consumer movement

Consumer research and survey techniques

Consumer behavior

Consumer information/education programs

The educational process

Consumer redress systems

In addition, we believe that the proficient consumer affairs professional will have an understanding of basic economics, marketing and how the business system functions.

Of equal or possibly greater importance to a consumer affairs professional are the skills of communication, a sensitivity to consumer problems at both the individual and societal level, an analytical ability to use resources in harmony and balance, and above all, the ability to manage the job with good interpersonal relationships.

Finally and most important, these understandings and skills must be supported by a strong commitment to the need for improved business/consumer relations which are likely to result as broad consumer interests are recognized and articulated in corporate decisions which affect consumers. Without this kind of commitment, we believe that it is impossible for a consumer affairs professional to maintain both his loyalty and responsibility to consumers and to his employer.

This brief analysis of the consumer affairs profession and the needs of individuals involved serves as the basic philosophy which undergrids the development of programs in consumer affairs and consumer resources at Oklahoma State University. We welcome inquiries concerning our on- or off-campus programs and would appreciate an opportunity to plan cooperatively with agencies, associations, or corporations in devising programs which will relate to specific needs and goals.

Consumer Affairs, an emerging profession, is facing the challenge of professionalization if it is to continue its growth and influence on the consumer scene.

AN EMPIRICAL ANALYSIS OF THE EFFECTIVENESS OF THE MAGNUSON-MOSS ACT

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ABSTRACT

The Magnuson-Moss Act was passed in 1975 to alleviate the problems consumers faced in regard to warranties. This paper reanalyzes the data from two studies sponsored by the Federal Trade Commission which were meant to assess the effectiveness of the Act. It was found that the law had a positive impact on the readership and availability and a negative impact on the understandability of warranties. It is recommended that the FTC change its disclosure rule so as to make warranties more understandable.

The Magnuson-Moss Act was passed in 1975 to address the warranty problems in the consumer marketplace. There are five key aspects to this Act and the regulations promulgated under it. The first important element of the law requires that warranties contain certain information, such as the time the guarantee commences. Another important provision requires that warranties be accessible to consumers before purchase. The Act also requires that every warranty be designated full or limited, and that full warranties contain certain conditions such as allowing a consumer to collect a refund without charge if the defect is not corrected. A fourth element of the law requires that suppliers may not disclaim implied warranties where a written warranty is given. Finally, rules developed under the law require that an information dispute mechanism be included in the warranty.

There have been several empirical studies on the effectiveness of the Magnuson-Moss Act. McDaniel and Rao discovered that consumer evaluation of warranties declined from 1976 to 1978 [3]. Shuptrine and Moore found that even after passage of the Act, people found warranties difficult to understand [4]. Another study concluded that the Act has not been effective in improving warranties [6].

The FTC is currently holding hearings in which the effectiveness of the rules promulgated under the Magnuson-Moss Act are being reviewed. In anticipation of these hearings, the FTC commissioned two large empirical studies on the effectiveness of the Magnuson-Moss Act. These two studies, conducted in 1976 and 1982, suffer from several shortcomings which could be alleviated by additional analysis. First, the design and organization of the studies is not systematically centered around the provisions of the Act. Another flaw is that no longitudinal analysis is reported, which is especially limiting when one considers that many of the regulations, such as the disclosure availability and informal dispute rules, were adopted after the first study.

The purpose of this paper, then, is to correct the limitations of these past research efforts. In particular this research will provide a section-by- section analysis of the Magnuson-Moss Act using the data from both the 1976 and 1982 studies performed by the FTC. It is hoped this will aid in evaluating the effectiveness of the rules made under the Act.

METHOD

The samples from the 1976 and 1982 studies were randomly drawn from a consumer panel with demographic characteristics similar to the United States population. In 1976 mail surveys were sent to 4,300 households and responses were received from 3,063 individuals, making the response rate 71.2%. In 1982 mail surveys were sent to 8,691 households and responses were received from 6,418 individuals, making the response rate 73.8%.

However, each survey covered roughly the same subject-matter, asking the respondents to rate their experiences with three or four recently purchased durable products. In 1976 a total of 6,691 product ratings were obtained and in 1982 a total of 12,644 product evaluations were received. Access to these data was obtained through the Freedom of Information Act. Unfortunately the wording of some of the questions on the two surveys is different. While this difference may introduce some bias into the results, meaningful comparisons are still possible. It is especially desirable that such comparisons be made in light of the recent announcement by the FTC that it will hold hearings to consider revising the rules promulgated under the Act.

RESULTS

The disclosure rule (701) is the first important aspect of the Act. This rule, which went into effect on December 31, 1976, requires that written warranties be easily understandable and disclose the various terms and conditions of the warranty. The questions on the two surveys most closely related to the effectiveness of this provision concern the understandability of warranties.

Table 1 presents information on the general understandability of warranties in 1976 and 1982. While the questions in the two surveys are not exactly the same, the results seem to suggest that consumers found warranties substantially less understandable in 1982 than they did before the passage of the disclosure rule. In 1976, 77.2% of the respondents thought that warranties were very easy or somewhat easy to understand, compared to only 35.2% of the consumers in 1982 who strongly agreed or somewhat agreed with the statement, "warranties are usually in plain english and easy to understand." Also in 1982, over one-half of the sample agreed with the statement that warranties are in plain English and easy to understand. Thus it seems that the passage of the disclosure rule may have negatively affected the ability of consumers to process warranties.

The presale availability rule (702) which also became effective on December 31, 1976 requires that warranties be made available to the consumer before purchase, either in conjunction with the product or in a separate binder at a special location in the store. Table 2 presents data on availability of warranties relevant to the effectiveness of this rule. In 1976, 81.6% of the products had warranties available before purchase, compared with a 95.2% availability in 1982. Thus, it appears that the presale availability requirement is having a positive impact on the ability of consumers to see the warranty before they buy the product.

To determine the effectiveness of the components of the presale availability rule, the 1982 survey asked people to indicate where they saw the warranties. The results, which are presented in Table 3, show that 72.8% of the consumers saw the warranty on or with the product, 17.8% said the salesmen showed them the guarantee, and fewer than 5% saw the warranty either on a sign, in a binder or notebook, or in a mail-order catalog. These results seem to suggest that displaying a warranty in conjunction with a product is much more effective than putting it in a notebook or on a sign.

The readership of warranties might also reflect on the effectiveness of the presale availability rule. Table 4 presents the readership of the warranties both before and after purchase in 1976 and 1982. Readership of warranties after purchase remained approximately the same; however, the readership before purchase increased from 1976 to 1982. This might indicate that the disclosure rule, or some other aspect of the Act, might have had a positive effect on the tendency of consumers to process the warranty before they buy the product.

Another provision of the Act which took effect in 1975 concerns full and limited warranties. In order for a firm to designate a warranty as full, certain guarantees and information must be placed in the warranty. The only question on the 1976 survey concerning this provision asked people how their warranty was labeled. As shown in table 5 almost half of the warranties are labeled 'full'. In 1982, the survey asked people to indicate their agreement with the statement that the designation of a warranty as full or limited didn't mean much. As shown in Table 5, almost 88% of the respondents strongly or somewhat agreed with this statement. Thus, it seems apparent that greater clarification of the meaning of full and limited warranties needs to be made to consumers if this provision of the Act is to have maximum impact.

The Act also states that any firm that provided a written warranty could not disclaim any implied warranties that might be present. The purpose of this provision was to keep firms from reducing their liability by providing a written warranty that was weaker than the implied guarantee. However, some have contended that this might encourage firms to provide no warranty at all so that a disclaimer might be used [5]. Table 6 presents the percent of product purchases in 1976 and 1982 where a warranty was present. As evidenced by the fact that the percentage of products having warranties in both years was very high and nearly equal, more firms are probably not disclaiming warranties because of the Magnuson-Moss Act.

A final provision of the Act concerns the information dispute settlement rule (703), which requires that a mechanism meeting specified guidelines for resolving disputes be included in the warranty. The purpose of this rule, which took effect in the middle of 1976, was to facilitate consumer complaints and to prevent legal action. Table 7 shows that the overall experience with problem-solving under the warranty was positive in both 1976 and 1982. Although the questions are different in the two surveys, there seems to be no overall difference in satisfaction. Thus, these figures might mean that this rule has had little impact on satisfaction with the way complaints were handled. In regard to alleviating the necessity of legal action, far less than one percent of the warranty problems eventually were resolved in court in 1982. Thus, it is possible that this rule may have helped resolve complaints before legal action was taken.

DISCUSSION

The general implication of this brief reanalysis of the two FTC studies on warranties is that the Magnuson-Moss Act has had varying effects on consumers. On the positive side the availability and readership of warranties appears to have increased. This might indicate the presale availability rule has been effective. If this is so, the Commission should definitely keep this rule and not modify it as has been proposed. The FTC might, however, consider taking steps such as instituting a publicity campaign to make consumers aware of the notebook binders and signs in a store that contain warranties. Such actions might further increase the effectiveness of the availability rule.

The warranty requirements that have had a neutral or uncertain impact on consumers are in the disclaimer and informal dispute areas. It appears the Act's requirement that implied guarantees may not be disclaimed by written warranties has no effect on the percentage of products that have warranties.Regarding the informal dispute settlement rule it appears that satisfaction with the way firms fulfilled their warranty obligations was high before and after the passage of the Act. However, very few individuals took legal action over a warranty dispute after the rule was passed. Given this situation, it is possible that the rule is helping consumers resolve complaints.

On the negative side, the understandability of warranties seems to have significantly declined since the passage of the Act. This finding is consistent with the results of other research [3][4]. This seems to indicate that the disclosure rule, which requires that certain information be contained in the warranty and that warranties be designated as 'full' or 'limited', may have confused consumers. Clearly steps need to be taken to improve the situation. The FTC might conduct research on the various presentation formats and then require that firms construct warranties in the manner that is most understandable to the consumer. If it is not possible to present the information clearly to consumers, then the Commission might consider dropping the disclosure rule entirely as it appears to hurt, rather than help, the ability of consumers to process essential warranty information.

CONCLUSION AND SUMMARY

The Magnuson-Moss Act is important legislation designed to help consumers handle warranties. The FTC wisely commissioned two studies to evaluate the impact of this law and the rules promulgated under the Act. Unfortunately the studies did not systematically and extensively analyze the Act and its rules on a section-by-section basis, and did not take before and after measures of the law's effectiveness. This study in reanalyzing the data discovered that the readership and availability of warranties appears to have increased, while the understandability of warranties appears to have declined. Clearly, the FTC should now take steps to make the language of warranties more understandable to consumers.

TABLE 1. Understandability of Warranties in 1976 and 1982.

1976

How understandable was the warranty?	Percent	N*
Very easy to understand	48.8	3007
Somewhat easy to understand	28.4	1750
Neither easy nor hard	17.6	1085
Somewhat difficult	4.7	289
Very difficult	.5	31
	100	6162

1982

Warranties are usually in plain English and easy to understand	Percent	N**
Strongly agree	8.3	531
Somewhat agree	27.2	1745
Somewhat disagree	37.1	2382
Strongly disagree	22.7	1460
Don't know or no answer	4.7	300
	100	6418

Warranties are full of technical and legal terms most people can't understand	Percent	N**
Strongly agree	17.4	1116
Somewhat agree	38.9	2494
Somewhat disagree	28.8	1848
Strongly disagree	10.1	649
Don't know or "no answer"	4.9	311
	100	6418

*the base is total number of purchases with warranties - "no answer" responses with deleted

*the base is the total number of respondents (n = 6418)

TABLE 2. Availability of Warranties Before Purchase in 1976 and 1982.

	1976	N	1982	N
Available	81.6%	4398	95.2%	7750
Not Available	18.4%	911	4.8%	379
	100	5389		8129

the base in both years was the total number of respondents who indicated that warranties were either available or not available before purchase; "don't know" or "don't remember" responses were deleted.

Differences proportions tests were not performed because large sample sizes made relatively small differences significant.

TABLE 3. Consumers Noticing Warranties in Various Locations in 1982.

Location	Percent	N
Sign in store	4.3	344
On or with product	72.8	5495
In binder or notebook	4.2	319
Salesman showed it	17.8	1346
In mail-order catalog	2.4	178

items are not mutually exclusive

the base is the total number of respondent purchases where the warranty was available before the product was bought.

TABLE 4. Readership Rate of Warranties Before and After Purchase in 1976 and 1982.

	1976 Percent	N*	1982 Percent	N**
Read Warranty Before Purchase	28.0%	1901	44.0%	4758
Read Warranty After Purchase	71.2%	4878	71.5%	7722

*readership of warranties before and after purchase in 1976 was calculated by dividing the number of purchases where individuals received details about warranty from partial or complete reading before purchase (n = 1901), and total number of individuals who indicated that they read the warranty after purchase (n = 4878) each by the total number of purchases with warranties (n = 6793). The before and after readership figures are not mutually exclusive.

**readership of warranties before and after purchase in 1982 was calculated by dividing the number of purchases where individuals who indicated that they read or look at the warranty briefly before purchase (n = 4758) and after purchase (n - 7722) each by the total number of purchases with warranties (n = 10805). The before and after readership figures are not mutually exclusive.

differences proportions tests were not performed because large sample sizes made relatively small differences significant.

TABLE 5. Information on Full and Limited Warranties in 1976 and 1982.

1982

Whether a warranty is full or limited doesn't mean much - you have to read it to find out what is covered and how long

	Percentage	N*
Strongly agree	61.0	3913
Somewhat agree	27.0	1780
Somewhat disagree	4.8	307
Strongly disagree	2.3	150
Don't know or no answer	4.2	268
	100	6418*

1976

How is your warranty labeled

	Percentage	N**
Full	49.9	1638
Limited	27.3	896
Combination	19.5	312
No Labelled	13.3	437
	100	3283

*the base is the total number of respondents.

**the base is the total number of respondent purchases - "don't" know or "no" answers are not considered in the percent calculations.

TABLE 6. Percent and Number of Products Having Warranties in 1976 and 1982.

Year	Percent	N
1976	87.9	6793
1982	85.5	10804

the base was the total number of respondent purchases. (1976: n = 7725; 1982: n = 12644)

differences proportions tests were not performed because large sample size made relatively small differences significant.

TABLE 7. Overall Satisfaction with Solving Problems Under Warranty in 1976 and 1982.

1982

Overall experience with trying to get problem resolved under warranty

	Percent	N
Excellent	53.2	422
Very Good	15.5	123
Good	9.3	74
Fair	10.2	81
Poor	11.7	93
	100	793

1976

Satisfaction with way problem was handled

	Percent	N
Very Satisfied	62.5	343
Somewhat satisfied	13.8	76
Neither satisfied nor dissatisfied	4.9	27
Somewhat dissatisfied	8.2	45
Very dissatisfied	10.6	38
	100	549

the base is the total number of respondent purchases for who attempted to solve a problem under the warranty and who answered the question.

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BOSE CORPORATION V.CONSUMERS UNION OF THE UNITED STATES: PRODUCT CRITIQUES AND THE FIRST AMENDMENT

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ABSTRACT

In Bose Corp v. Consumers Union of United States Inc., the Supreme Court extended broad First Amendment protection to statements made by the defendant Consumers Union Inc. concerning speaker systems manufactured by the corporate plaintiff Bose. In a landmark decision, the procedural protection afforded by the First Amendment was broadened to include comprehensive appellate review of all critical issues. While the Court did not address all issues in the case, logic from its past decisions argues that consumer-oriented criticism should be judged under the liberal standards granted to political speech under the First Amendment.

INTRODUCTION

Many consumer organizations engage in the criticism of products or services by various vendors. One response by the vendor may be to threaten or begin a lawsuit, hoping to stifle the criticism. These cases often do not get to the higher courts because consumers can rarely afford the legal fees to defend themselves. Other cases are disposed of on the grounds that the critique was essentially opinion, rather than a statement of fact. The BOSE case was unusual in that all courts involved treated the critique as a factual statement, and both sides were willing to bring the case through the entire court system.

FACTS OF THE CASE

In a May 1970 issue of Consumer Reports, the defendant's widely circulated magazine, the defendant made the following statements concerning the Bose loudspeaker system:

> Worse, individual instruments heard through the Bose system seemed to grow to gigantic proportions and tended to wander about the room. For instance, a violin appeared to be 10 feet wide and a piano stretched from wall to wall. With orchestral music, such effects seemed inconsequential. But we think they might become annoying when listening to soloists[3,p.1253].

Bose Corporation instituted a product disparagement action against Consumers Union claiming three distinct falsehoods about instruments heard through the Bose system: (1) that their size seemed grossly enlarged; (2) that they seemed to move; (3) that their movement was "about the room".

THE LAW OF LIBEL AND PRODUCT DISPARAGEMENT

Product disparagement is a tort action where the plaintiff must prove that a false statement concerning the nature and quality of the product was made by the defendant.[2, sec 623] Product disparagement is analogous to defamation, however the two actions differ in several respects. Defamation includes the general areas of libel and slander.[22] Corporations can be defamed [8,15,16,17,21] However, corporate defamation relates to the character of the corportion, its morality or ability. Product disparagement is more analogous to the law of unfair trade practices and relates to false or misleading criticism of a product. [18] The damages which can be awarded in a product disparagement action are considerable.

BOSE is the first product disparagement case in the long line of Supreme Court decisions balancing private rights against the First Amendment.

The leading Supreme Court opinion regarding First Amendment libel law is the case of New York Times v. Sullivan [19]. In N.Y.TIMES the Court made two key distinctions. The first was between public figures and private persons. Under N.Y.TIMES, public figures are expected to bear a certain level of harsh, even inaccurate criticism, in order to vindicate the right of the public to robust and open debate. Second, the court defined the level of criticism by setting a standard of "actual malice". Under this standard, if the plaintiff is a public figure, the plaintiff must prove not only that the statement is defamatory and false, but that the author knew it was false, or acted with reckless disregard of the truth.

BOSE:THE LOWER COURT DECISIONS

In an extensive trial at the district court level Bose prevailed. The district court applied the two- tiered N.Y.TIMES test to find Consumers Union liable. First it found that Bose was a"public figure". Bose did not contest this finding, but it is crucial to the decision.

The court then turned to the issue of "actual malice". The court listened to extensive testimony from the engineers who conducted the test. The court, sitting as a factfinder without a jury, did not believe the chief engineer accurately reported what he heard. On that basis the court determined that the article was false, and that the engineer (and, by law, Consumers

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Union) knew it was false. To the trial court, this was sufficient to prove liability.[3]

Consumers Union appealed, and the federal appellate court reversed. [4] The court held that it could conduct an independent review of both facts and law, to determine whether the district court had made an error. This is an extremely unusual proceeding, since normally the conclusion of a lower court on a factual issue, such as knowledge of falsity, would not be reexamined by an appellate court. The appellate court focused on Consumers Union's good faith and editorial review process. It noted that the standard for such articles is not very high:

> Although we would refrain from describing CU's loudspeaker article as exemplifying the very highest order of responsible journalism, CU does not have to meet such high standards to prevail.[4, p. 196]

The appellate court was clearly concerned that courts could stifle criticism by insisting on literal truth in what is an inexact science, or that the fear of liability could lead to self-censorship.

SUPREME COURT OPINION

Bose appealed the case to the United States Supreme Court.[5] The Supreme Court in BOSE extended the N.Y.TIMES actual malice standard to product disparagement actions that involve a public figure. The court held that the author's testimony at trial concerning the Consumer Reports article did not constitute clear and convincing evidence of actual malice, i.e., that Consumers Union published the article "with knowledge that it contained a false statement or with reckless disregard of the truth."

The Court also held that appellate judges acting under N.Y.TIMES must exercise independent judgment and determine whether the record establishes actual malice with convincing clarity

Finally, the Court decided that the statement made by Consumers Union fell well within the robust debate permitted by the First Amendment, and, as a matter of law, could not have been made with the "actual malice" required by N.Y.TIMES.

> The statement in this case represents the sort of inaccuracy that is commonplace in the forum of robust debate to which the NEW YORK TIMES rule applies. ... Realistically, ...(sic)some error is inevitable; and the difficulty of separating fact from fiction convinced the Court ... to limit liability to instances where some degree of culpability is present in order to eliminate the risk of undue self censorship and the suppression of truthful material. [5, p.1966]
>
> the difference between hearing violin sounds move around the room and hearing them wander back and forth fits easily within the breathing space that gives life to the First Amendment. [5, p.1966-67]

COMMERCIAL SPEECH AND THE LAW OF LIBEL

The most important conclusion of the Court in BOSE was that First Amendment issues require a very close scrutiny by the appellate courts to make sure that values of the First Amendment are not bypassed. In the past this was clearly true in "political " speech. BOSE stands for the proposition that product critiques may deserve full First Amendment protection as if they were political speech. The equation of product critiques to political debates represents a significant development in the doctrine of "commercial speech".

The doctrine of commercial speech deals with the First Amendment rights of speakers in the economic marketplace, as opposed to political debates. Traditionally, political speech was unregulated by the government, but could be controlled by courts through the libel laws. Commercial speech was regulated by the government. Libel law was brought in line with the First Amendment in NEW YORK TIMES. Commercial speech was granted partial First Amendment protection in Virginia State Board of Pharmacy v. Virginia Citizens Consumer Council, Inc.(VIRGINIA PHARMACY) [25] BOSE is the first substantive First Amendment libel case to arise after the extension of First Amendment protection to commercial speech.

The most important question involves defining product critiques under the First Amendment. Are they commercial speech, or political speech? The remainder of this article will compare the N.Y.TIMES-BOSE line of defamation cases with the VIRGINIA PHARMACY concept of the role of commercial speech in the First Amendment. The purpose is to create a logical structure for defining the role of product critiques under the First Amendment.

Historically, commercial speech was not considered protected under the First Amendment. [24] Therefore it could be regulated by the government without affecting the First Amendment. However, in VIRGINIA PHARMACY the Court extended First Amendment protection to some types of commercial speech, citing the strong interests of consumers and society as a whole in the free flow of accurate commercial information.

> So long as we preserve a predominantly free enterprise economy, the allocation of our resources in large measure will be made through numerous private economic decisions. It is a matter of public interest that those decisions, in the aggregate, be intelligent and well informed. To this end, the free flow of commercial information is indispensable.(cites ommitted) And if it is indispensable to the proper

> allocation of resources in a free enterprise system it is also indispensable to the formation of intelligent opinions as to how that system ought to be regulated or altered. Therefore , even if the First Amendment were thought to be primarily an instrument to enlighten public decisionmaking in a democracy, we could not say that the free flow of information does not serve that goal. (footnotes omitted) [25,p.765]

No problem arises when the product critique is clearly accurate. Several Supreme Court decisions protect accurate commercial speech. Likewise, libel law requires proof that the statement is not only defamatory, but false. The question is what liability can be imposed for critiques proven to be false.

This first requires analysis of the different role of truth in debates involving public as opposed to private persons. In a well known libel case, the Supreme Court in Gertz v. Welch said that "there is no constitutional value in false statements of fact."[10,p. 340]

Since the plaintiff in GERTZ was a private person, he had a right to be protected against false defamatory statements, with the press bearing the risk that a statement made in good faith might be incorrect. However, when dealing with a public figure, the Court in N.Y.TIMES noted that:

> factual errors are inevitable in free debate, and the imposition of liability for erroneous factual assertions can 'dampen the vigor and limit the variety of public debate' by inducing self-censorship.[19, p.279]

The press is therefore allowed to make errors when dealing with public figures, if not made with actual malice. The same rule does not apply to advertisers. Justice Stewart in VIRGINIA PHARMACY differentiated between the press and the advertiser stating that:

> in contrast to the press, which must often attempt to assemble the true facts from sketchy and sometimes conflicting sources under the pressure of publication deadlines, the commercial advertiser generally knows the product or service he seeks to sell and is in a position to verify the accuracy of his factual representations before he disseminates them. [25,p.777(Stewart J., concurr)]

This statement allowed the court to continue programs such as government control of false advertising. In later commercial speech cases the Court has continued to insist on truth in commercial speech. In later cases the court has expanded on the rights and limits of commercial speech under the First Amendment. The Court has recognized the critcal role of commercial speech in the marketplace of ideas. The Court has defined commercial speech as"expression related solely to the economic interests of the speaker and its audience". [7,p.562] The court went on to state:

> Commercial expression not only serves the economic interest of the speaker, but also assists consumers and furthers the societal interest in the fullest possible dissemination of information. [7 p. 562-63]

The Court emphasized the role of truth by saying:

> "there can be no constitutional objection to the suppression of commercial messages that do not accurately inform the public about lawful activity."[7 p. 563]

It is important to note the purpose of the discussion of commercial speech. The doctrine of commercial speech defines what speech can be restrained by the government prior to publication. In a libel case no speech has been restrained. The application of the First Amendment is designed to prevent self-restraint under fear or threat of a libel action. If a type of speech could be restrained by the government anyway, there is no special reason to protect it from the fear of libel. On the other hand, if the type of speech could not be constrained by the government, there is an excellent case for applying the most liberal standards to such speech. Since commercial speech defines the limits of the government's ability to restrain speech, it provides an important dividing line between the areas where robust debate is the goal of the law, and where other values take precedence.

The issue created by BOSE is whether First Amendment privileges and immunities of organizations working in the field of product testing, comparison, and evaluation should be in the class of commercial speech, which can be controlled if false, or newspaper commentary, which is given the widest scope of freedom even if false? In other words, since a false statement in an advertisement is clearly restrainable by the government [9], is a false statement in a product critique equally unprotected under the Constitution? Or do product critiques have a special status under the First Amendment? Does it make a difference whether a competitor or a third party is criticizing the product? If there is to be one rule for the advertiser and another for the critic, how is it to be justified?

From the point of view of the producer, it is conceptually difficult to separate a product critique from a statement designed to sell a product. A False statement concerning a product is the natural target of a government ban on false advertising. Consumer Reports was not attempting to market or sell a product. However, CONSUMERS UNION sells product critiques. The article purported to be an unbiased professional critique on loudspeaker systems readily available to the public. A false statement in the product critique has the same capacity to mislead the public as a false statement in an advertisement. It is clear that if the statements in the Consumer Reports Article had been made by a competitor, rather than by Consumer Reports, there would be no question that it was commercial speech. Therefore, the speech may be deemed to be "commercial" in the sense that Consumer Reports obtains revenue, although not profits, from the distribution and sale of its periodical. There was no suggestion in any of the BOSE decisions that Consumers Union's non-profit status had any effect on the case.

On the other hand, the speech in Consumer Reports may be classified as political in the sense that product critiques, whether biased or unbiased, correct or incorrect, are really an exposition of ideas and opinions concerning consumer choice in the marketplace. Under this reasoning such statements should be protected by the full force of the First Amendment.

It is the role of the First Amendment to protect speech related to political action. Since in our free economy we rely on the private sector to provide most goods and services, criticism of those providers is a component not only of commercial speech, but arguably political speech.

It may be argued that the criticism of products is the type of robust debate that N.Y.TIMES was designed to protect. Just as citizens should be free to criticize politicians who promote dangerous or wasteful policies with the maximum freedom, so should consumers and their organizations be able to criticize producers.

It should be noted that even in a political debate a libel case can be won if the plaintiff proves that the defendant knew the statement was false, or acted in reckless disregard of the truth. This may be an appropriate standard for consumers and organizations. The issue can be further developed by asking whether the standard should differ for various vendors, large or small. Unfortunately, the law currently applies that standard only to "public figures". This requires analysis of the status of public figures.

PUBLIC FIGURES

The Supreme Court in BOSE did not examine the issue of whether a vendor is automatically a public figure. The Court noted that the lower court found that Bose was a public figure, and Bose did not object to that characterization. However, Bose had submitted its radical speaker design to stereo critics and others, in the hope that favorable reviews would stimulate sales. The design itself sparked considerable technical debate. This probably would have been enough to make Bose a public figure, even under the most restrictive analysis. More importantly, what is the status of a vendor who doesn't advertise, doesn't invite criticism, and whose name is hardly a household word? The issue is of vital importance, since a vendor who is not a public figure could win a defamation action based on a mere negligent false statement in a product critique.

In Hutchinson v. Proxmire, the Supreme Court dealt with a senator's criticism of a scientist's research. The Court rejected the suggestion that the scientist was a limited public figure for the purpose of comment on his receipt of federal funds for research purposes. The senator's golden fleece award clearly carried the implication that public funds were being expended on pointless and wasteful research. The Court noted that the scientist was addressing a small, presumably expert group of readers: "His published writings reach a relatively small category of professionals concerned with research in human behavior". [14, p. 135]

This decision would seem to support the suggestion that some scientists are public figures and some are not. Few would argue that the Nobel prize winning scientists who pioneered the polio vaccines are not public figures. How can we draw a line? The opinion in PROXMIRE is difficult to interpret, but the conclusion may turn on the highly personal nature of scientific work. Criticism of a scientist's work as pointless and wasteful is almost identical to a personal claim of fraudulent activity. In contrast, product critiques are normally related to the product. They may carry little of the moral overtone of a libel action.

One solution would be that the product critique should be viewed, not from the point of view of the producer, but from the point of view of the consumer. To a consumer, all vendors are in the same position, no matter what their size, ownership, or scope of operation.

Suppose there were two apartment complexes in a city. Both are constructed and operated in exactly the same way, one by the city and the other by a private developer. The city is clearly a public figure. Is there any rational basis for treating the other vendor differently? As far as the consumer is concerned they are engaged in the same activity. Logic would indicate that both are public figures. In both cases the public is invited to consume the product. The same could be said for the vendor of any product. Is there any basis for concluding that some restaurants are public figures, and others are private persons, when it comes to restaurant reviews? Placing a product in the marketplace is a public act. Criticizing products serves the same purpose of robust public debate as any political argument. To many people it is even more important.

> As to the particular consumer's interest in the free flow of commercial information, that interest may be as keen, if not keener by far, than his interest in the days most urgent political debate.[25, p.748]

A possible conclusion is that any vendor who places a product on the market, is a public figure for the purpose of critique of the product. This plainly would fall under the definition of public figures in GERTZ as including those who "engage the public's attention in an attempt to influence its outcome". [10, p. 352] Advertisers clearly engage the public's attention and attempt to influence them to buy their product. Nothing about the Supreme Court's ruling requires that the public issue be overtly political.

The alternative is that some vendors are public figures, and others are not. The problem with this approach can be seen in a case called GOLDEN BEAR. [11]

In GOLDEN BEAR the products being sold were franchises to handle various soft drink machines. A magazine oriented towards buyers of these franchises published an article which could be considered negligently defamatory. In the litigation the court considered Golden Bear to be a private party as a matter of law:

> Here Golden Bear of Texas did not "thrust itself" into a public controversy by merely advertising its services. Were we to agree with Entrepreneur's hypothesis, the mere fact of advertising would render all business public figures.[11, p. 952]

In GOLDEN BEAR a consumer oriented magazine was held liable for defamation because it did not adequately differentiate between two corporations of similar name , engaged in the same line of business. The article was literally true, but the court held the implication of bad conduct by one corporation to the other to be defamatory.

Most importantly, the court imposed on the defendant magazine the burden of proof that the statements were true, rather than the plaintiff corporation having to prove that the statements were false. This was the result of the finding, as a matter of law, that Golden Bear was not a "public figure". See also [6,17].

In a similar case, HALLMARK BUILDERS,[12] a homebuilder sued a TV station for defamation regarding statements concerning the defendant's homes. The court declared the builder to be a private person, and held the television station to a standard of proving the truth of the broadcast.

This does not seem to comport with the free and robust debate of N.Y.TIMES, or the acceptance in VIRGINIA PHARMACY that commercial speech represents a key First Amendment concern. A better rule is that all vendors are public figures with regard to products they offer for sale.

COMPETITOR V. NON COMPETITOR CRITICS

Based on the above analysis, vendors in a free enterprise economy, whatever their size, product, or method of doing business, would be public figures protected by a standard of actual malice. This proposal does not mean that competitors would have the same privilege. Clearly, a misrepresentation concerning a competitor's product is precisely the type of conduct the Court would allow to be regulated. It may be possible to fashion one rule for vendors, another rule for critics, such as CONSUMERS UNION.

This occurred in the related cases of PERMA-MAID [20] and SCIENTIFIC MANUFACTURING [23]. In SCIENTIFIC MANUFACTURING an author was selling a book which contained his own opinion that aluminum pots caused cancer. In PERMA-MAID a corporation selling cast iron pots made the same claims. The Federal Trade Commission brought actions against both parties. The FTC prevailed against the manufacturer on a claim of false advertising but lost against the author on First Amendment grounds suggest strongly that a non-competitor critic is entitled to greater protection under the First Amendment.

CONCLUSION

The BOSE case represents a clear step forward for consumer oriented criticism of product vendors. Under Bose vendors who are public figures must show actual malice, and the evidence of actual malice must be examined in detail at the appellate level. BOSE left open the question of who is a public figure. Analyzing this issue in light of the social concerns raised in N.Y.TIMES and its progeny would result in a rule where any vendor is a public figure with regard to consumer criticism of his product.

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MOTORCYCLE HELMET LAWS: A CASE STUDY OF CONSUMER PROTECTION[1]

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ABSTRACT

This paper examined the impact of Federal legislation in 1976 on state motorcycle helmet laws. As a result of this legislation seven states repealed helmet laws while two states did not enact laws. The ensuing increase in motorcycle injuries and the costs of such injuries were estimated for 1981. Total costs ranged from $70 million to $219 million depending on the degree of protection provided by helmets, the relative importance of AIS 3-6 injuries and the assignment of life values.

INTRODUCTION

The growing popularity of motorcycles in the early 1960's was accompanied by an increase in the number of motorcycle injuries. This, in turn, stimulated interest in the causes of motorcycle injuries and strategies that might be used to prevent them. Investigations revealed that head injuries were the leading cause of death, and that helmet use was related to the frequency and severity of head injuries (13).

At this time, helmet use was voluntary and only 25 percent of accident involved riders wore helmets. It was believed that helmet laws would be effective in reducing deaths and injuries from motorcycle accidents. As a result, the 1966 Highway Safety Act contained a standard for motorcycle safety authorizing the government to withhold 10 percent of federal highway construction funds from any state which did not require motorcycle operators and passengers to wear safety helmets (13).

Within two and a half years of the 1966 Highway Safety Act, forty-seven states, the District of Columbia and Puerto Rico, had adopted mandatory motorcycle helmet laws. During 1975, the Secretary of transportation began proceedings against California, Illinois, and Utah to determine whether federal funds should be withheld because of their failure to comply with the motorcycle helmet use standard.

Congressional hearings were held in 1975 and 1976 on the issue of mandatory helmet use laws and the authority to withhold federal funding from states that did not enact helmet laws. The National Highway Safety Traffic Administration (NHTSA), the Insurance Institute for Highway Safety and various private organizations compiled studies all showing that helmets saved lives and they claimed that helmet laws were a legitimate area for Federal legislation (17). However the testimony was dominated by motorcycle groups opposed to helmet laws who claimed that the legislation was an infringement on personal rights and raised questions concerning the effectiveness of helmets. The major lobbyists were the cycling groups, the American Motorcycle Association (AMA), and A Brotherhood Against Totalitarian Enactment (ABATE). These groups were vocal, lobbied strongly for freedom of choice, got public attention, and held a mass rally before the Capitol during debate over the issue (17).

Senator Cranston from California introduced an amendment to the 1976 Federal Aid Highway Safety Act stating that federal funds should not be withheld from states that did not require helmet use by persons 18 years of age or older. Because opponent lobbying efforts were dominant at the hearings, the Senate passed the amendment and it was eventually approved by Congress (17). By 1979, twenty-eight states had either fully repealed their helmet laws or modified them to require helmet use only by persons under 18 years of age, while twenty states, the District of Columbia, and Puerto Rico retained their helmet laws.

This paper examines the costs to society from the absence of any type of helmet law in nine states in 1981. These states either fully repealed their laws or did not enact laws in response to the 1976 Federal Highway Safety Act. All costs are expressed in constant 1981 dollars. Consideration is also given to the role of the Federal and State governments and the consumer in the consumer protection process. The results of this study should be of interest to consumer economists and consumer educators since they indicate that reliance on the informed buyer approach in the case of motorcycle safety has resulted in a less than optimal level of protection for society as a whole.

PROCEDURE

The loss to society from the repeal of helmet laws or the failure to enact helmet laws was based on the increase in the number of injuries due to the absence of helmet laws in 1981 and the costs of such injuries. The nine states included in the study were California, Colorado, Connecticut, Illinois, Indiana, Iowa, Nebraska, Rhode Island, and Washington. Two states (California, Illinois) had delayed action on helmet laws while the seven other states had repealed their helmet laws in response to the 1976 Amendment.

The increase in the number of injuries was based on data from the Fatal Accident Reporting System

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(FARS) which is the most comprehensive data source available and the degree of protection provided by helmets. Data from 1980-1982 were used to provide estimates of the number of injuries in 1981 since fatality data may fluctuate widely from year to year.

Costs were based on injury severity where injury severity is measured within the guidelines of the Abbreviated Injury Scale (AIS). The scale is as follows:

AIS Code	Severity
1	Minor
2	Moderate
3	Severe (Not life threatening)
4	Severe (Life threatening survival probable)
5	Critical (Survival uncertain)
6	Maximum severity (Untreatable)

The AIS is based on life threatening criteria rather than cost-based criteria (14). This study focused on AIS 3-6 since these are the critical injury levels.

The costs of injuries include direct and indirect costs. The direct costs are medical expenditures for treatment of injuries including hospitalization, and physicians fees. The indirect costs are the loss in output due to AIS 3-5 injuries and the value of life in the case of AIS 6 injuries. All costs were obtained in constant 1981 dollars.

Increase in the Number of Injuries Due to Repeal of Helmet Laws or Failure to Enact Laws

The number of AIS 3-6 injuries without helmet laws was first obtained using FARS data. There were a total of 4,351 fatalities including 569 helmeted persons, 1,600 unhelmeted persons, and 2,182 persons where helmet usage was unknown. It was assumed that helmet usage in the unknown category would have followed the distribution in the known categories resulting in a final estimate of 1,131 helmeted victims and 3,200 unhelmeted victims from 1980-1982.

Data on AIS 3-5 injuries were not available from FARS so the number of fatalities and the distribution of AIS 3-6 injuries were used to estimate the number of AIS 3-5 injuries without helmet laws. Two data sources were used to provide information on the distribution of AIS 3-6 injuries. The first source of motorcycle injury data was the National Highway Traffic Safety Administration (NHTSA) Report to Congress compiled in 1976-1977 (13). The second source of injury data was a study by the University of Southern California (4).

The number of AIS 3-6 injuries in the nine states is given in Table 1. Estimates include both drivers and passengers. The data indicate that most injuries are in the AIS 3 category and that the greatest differences between the two data sources occurs in the case of AIS 4 injuries for helmeted victims and AIS 5 for unhelmeted victims.

The number of injuries if the nine states had retained or passed helmet laws was based on the number of injuries in 1980-82, the degree of protection provided by helmets and helmet usage in states with helmet laws. Two estimates of helmet effectiveness were used. The first estimate was based on a statistical study by Watson, Zador, and Wilks concerning the helmet law repeal (16). Their results indicated a 28 percent decrease in fatalities due to enactment of a helmet law. Their findings are in close agreement with previous findings by Robertson who found a 30 percent decrease in the mortality rate following enactment of helmet laws (7).

TABLE 1. Estimated Number of AIS 3-6 Injuries in Nine Selected States: 1980-1982

Helmet Usage	Injury Level AIS	NHTSA[a]	USC[a]
Helmeted	3	7,250	6,040
	4	2,070	3,145
	5	736	883
	6	1,131	1,131
Unhelmeted	3	9,918	10,723
	4	3,092	4,380
	5	1,868	5,281
	6	3,220	3,220

[a] Based on relative importance of injuries in AIS 3-6 categories.

The second estimate was based on data from the study done at the University of Southern California (4). This study consisted of 900 on-scene, in-depth investigations of motorcycle accidents in Los Angeles, California, a state that does not have a helmet law. A 36 percent degree of protection for helmets was obtained.

Helmet usage in states with laws indicated that 73 percent of fatal victims wore helmets. The following equations were used to estimate the number of helmeted victims (A) and unhelmeted victims (B) under helmet laws.

$A = 1{,}131 + x(C)$ where $1-x$ is the degree of protection provided by helmets,
$B = 3{,}220 - C$, and
$A = 2.7B$ based on the ratio of A to B in states with helmet laws
where C = increase in the number of victims wearing helmets after helmet laws.

The values for A and B were compared to the estimated number of fatalities to obtain an estimate of the change in the number of fatalities due to lack of helmet laws. The change in the number of fatalities ranged from 622 to 818 depending on the degree of protection provided by helmets.

The increase in the number of AIS 3-5 injuries due to lack of helmet laws was estimated using the same procedure as for fatalities. The same degree of protection and helmet usage were used in the absence of specific information concerning AIS 3-5 injuries. It is recognized that this procedure does not provide for changes in injury severity under helmet laws. Data are unavailable concerning such changes. However, a conservative estimate of the impact of helmet laws was made by assuming that the net impact of helmet laws on AIS 3 injuries would be zero. This would reflect the fact that any reduction in the number of AIS 3 injuries due to helmet laws would be offset by a change in injury severity from AIS categories 4, 5 and 6 to AIS 3. As a result, there would be no increase in the number of AIS 3 injuries if helmet laws were repealed.

Direct Costs of Injuries

The direct costs of motorcycle injuries are the medical expenditures for the treatment of injuries. Medical costs were based on a study by the Department of Transportation in 1975 which provided information for AIS 3-6 injury levels (14). These costs were inflated to 1981 dollars using the Consumer Price Index (12).

Indirect Costs of AIS 6 Injuries

Two methods were used to estimate the costs of AIS 6 injuries or the value of a life. They were the value of production foregone and willingness-to-pay. Each of the methods is discussed in the following sections.

Value of Production Foregone. The following equation was used to calculate the value of production foregone:

$$V_a = \sum_{n=a}^{72.5} \frac{P^n_{a1} P^n_{a2} Y_n}{(1+i)^{n-a}} \qquad (1)$$

where, V_a = present value of future earnings for an individual aged 'a',
a = midpoint of age group to which victim belongs at time of accident
n = midpoint of earnings age group
P^n_{a1} = probability that an individual aged 'a' will be alive at age 'n',
P^n_{a2} = probability that an individual aged 'a' will be employed at age 'n',
Y_n = earnings of an individual at age 'n',
and i = discount rate.

The probability of survival to different earnings age groups was obtained from the Department of Health and Human Services (10). Labor force participation rates and employment rates were obtained from the Bureau of Labor Statistics (11) while annual mean earnings were provided by the Bureau of the Census (9). In the case of females, provision was made for housekeeping earnings as well as earnings in the labor force. Annual mean housekeeping earnings were based on studies by Walker and Gauger (15) and Brody (1).

A 10 percent discount rate was used as an intermediate value between the private rate of time preference and the productivity of capital in the private sector. This rate was also recommended by the Office of Management and Budget (14).

Willingness-to-Pay. The value of production foregone has been criticized on the grounds that it does not consider the value of life to the population at risk but rather the value of foregone production to society (2). In contrast, willingness-to-pay focuses on the amount an individual would pay in order to reduce the probability of risk or death. Empirical studies have resulted in willingness-to-pay life values ranging from $41,000 to $5.6 million (2). An intermediate life value of $480,000 ($1981) was used in the study based on research by Thaler and Rosen (8). This value is likely to be considerably higher than life values based on the value of production foregone and will thus provide a higher estimate of the indirect costs of a fatality.

Indirect Costs of AIS 3-5 Injuries

The costs of non-fatal injuries were also measured by the value of production foregone. The present value of future earnings was used in the case of AIS 4-5 since a certain percentage of these injuries result in permanent disability. According to the study by the Department of Transportation (14) 25 percent of AIS 4 injuries and 57 percent of AIS 5 injuries involve permanent disability. Thus the value of production foregone was equal to 25 percent and 57 percent of the present value of future earnings of individuals with AIS 4-5 injuries.

The AIS 3 injury level did not involve any permanent impairment and was based on the number of days lost from work. The average number of days lost was 39 and this number was multiplied by an average work day income to yield an estimate of the value of production foregone.

Costs of Helmet Laws

The costs of helmet laws are the additional costs of purchasing and wearing helmets. The average purchase price of a helmet was $40 in 1981 with an expected life of five years. The annualized cost is thus $10.55 based on a 10 percent discount rate.

There were 1.848 million motorcycle owners registered in 1981 in the nine states under review and it was estimated that 50 percent of these owners wore helmets based on FARS data. Assuming that helmet laws would increase helmet usage to 100 percent then only 50 percent of these owners would have purchased protective headgear in 1981.[3] The total costs to owners was $9.748 million. This estimate was increased by 25 percent to provide for motorcycle passengers. Total purchase costs were $12.185 million.

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[3] The assumption of 100 percent helmet usage is at variance with the 73 percent usage rate for fatalities. However, motorcycle fatalities accounted for less than .002 of the total motorcycle registrants in 1981. Thus helmet usage is likely to be close to 100 percent when all riders are taken into consideration.

RESULTS

Increase in the Number of Injuries Due to Repeal of Helmet Laws or Failure to Enact Laws

The increase in the number of injuries in 1981 is given in Table 2. The number of injuries depends on the degree of protection provided by helmets, with the 36 percent degree of protection having the highest number of injuries.

TABLE 2. Increase in the Number of Injuries Due to Repeal of Helmet Laws or Failure to Enact Laws: 1981

Degree of Protection	Injury Level	Number of Injuries NHTSA	USC
28%	3	0-534	0-626
	4	171	238
	5	118	366
	6	207	207
36%	3	0-703	0-824
	4	227	313
	5	155	481
	6	272	272

Average Costs of Injuries

The average direct and indirect costs of injuries are given in Table 3. The indirect costs were based on the age sex distribution of fatalities using FARS data. It was assumed that the age sex distribution would not differ greatly for the four AIS categories. Low and high estimates of indirect costs reflect the value attached to life in the case of AIS 6. The low estimate is based on the value of production foregone while the high estimate is based on the willingness-to-pay. There is no difference between low and high estimates for the other three AIS categories.

TABLE 3. Average Direct and Indirect Costs by Injury Severity: ($ 1000)

Injury Level	Direct Costs	Indirect Costs Low[a]	High[b]
3	3.325	2.454	2.454
4	8.750	49.437	49.437
5	22.345	112.717	112.717
6	.870	197.750	480.000

[a]Value of life based on production foregone.
[b]Value of life based on willingness-to-pay.

Total Costs of Injuries Incurred Due to Repeal of Helmet Laws or Failure to Enact Laws

The direct and indirect costs of injuries are given in Table 4. For purposes of simplicity only data based on an increase in the number of AIS 3 injuries are reported in this table. Direct costs range from approximately $6 million to $12 million for 28 percent protection and from $8 million to $16 million for 36 percent protection. Indirect costs range from $64 million to $125 million when low estimates of the value of a life are used and from $122 million to $202 million when high estimates of the value of life are used. Cost variations reflect differences in the degree of protection provided by helmets and the use of NHTSA and USC data to estimate the number of AIS 3-5 injuries.

TABLE 4. Costs of Injuries Incurred in 1981 Due to Repeal of Helmet Laws or Failure to Enact Laws: ($ Million)

Estimate	Degree of Protection	Cost Category	Costs NHTSA	USC
Low[a]	28%	Direct	6.091	12.525
		Indirect	64.001	95.493
		Total	70.092	108.018
	36%	Direct	8.026	16.464
		Indirect	84.209	125.502
		Total	92.235	141.966
High[b]	28%	Direct	6.091	12.525
		Indirect	122.426	153.918
		Total	128.517	166.443
	36%	Direct	8.026	16.464
		Indirect	160.981	202.274
		Total	169.007	218.738

[a]Value of life based on production foregone.
[b]Value of life based on willingness-to-pay.

Total costs range from $70 million to $142 million in the case of low estimates and from $128 million to $219 million in the case of high estimates. The magnitude of the difference between the two sets of estimates indicates the sensitivity of the results to the particular value attached to a life. Direct costs account for only a small percentage of total costs. Total costs decrease when it is assumed that there would be no increase in the number of AIS 3 injuries due to repeal of helmet laws. The percentage reduction in costs ranges from 2 percent to 4 percent indicating that failure to take changes in injury severity into account had little impact on total costs.

Cost-Benefit Analysis

The data in Table 4 may also be used to represent the potential benefits from the enactment of helmet laws in 1981 and may be compared to the purchase costs of helmets which amounted to $12.185 million in the same year. Cost-benefit ratios ranged from .05 to .17 indicating that every dollar of benefits entailed costs ranging from 5 cents to 17 cents. Thus, helmet laws would have increased total welfare. The magnitude of the difference between costs and benefits also suggests that the omission of indirect costs of helmet usage such as comfort and time is unlikely to have affected the favorable results shown here.

DISCUSSION

This paper examined the impact of Federal legislation in 1976 on state motorcycle helmet laws. As a result of this legislation seven states repealed helmet laws while two states did not enact laws. The ensuing increase in motorcycle injuries and the cost of such injuries were estimated for 1981.

Total costs ranged from $70 million to $219 million depending on the degree of protection provided by helmets, the relative importance of AIS 3-6 injuries and the assignment of life values. These costs also represented the potential benefits from enactment of helmet laws in 1981 and were considerably higher than the costs of complying with the law. Cost-benefit ratios ranged from .05 to .17 indicating that every dollar of benefits from helmet laws entailed costs ranging from 5 cents to 17 cents.

The results of this study indicate that helmet laws are cost effective. However, the 1976 legislation and the response of states to such legislation means that the responsibility for consumer protection was passed from the Federal government to the states to the motorcycle rider. The resulting decrease in helmet usage and the increase in the number of motorcycle injuries suggests that the delegation of responsibility to consumers was not in the public interest. The assignment of responsibility to the states by the Federal government may be defended on the basis of states rights and the responsibility of states to implement appropriate laws for the protection of its citizens. However, the state legislatures proved vulnerable to the opponents of motorcycle helmet laws who lobbied effectively in the various state capitols. The major arguments made by opponents concerned the ineffectiveness of helmets in the event of accidents, the constitutionality of helmet laws and the role of government in protecting consumers. Each of these arguments is discussed below.

The issue of helmet effectiveness has been the subject of considerable debate in spite of the fact that there have been numerous studies demonstrating the effectiveness of helmets in preventing serious injuries or fatalities. Studies by NHTSA or sponsored by NHTSA have examined the effectiveness of helmets since the 1960's and have shown that helmets when worn, substantially decrease death and serious injury. The study by the University of Southern California (USC) concluded that the helmet is a significantly effective injury countermeasure (4). Additional research focusing on the effect of law repeals showed that states that repealed their helmet laws had a mortality rate increase of 38 percent which was in close agreement with previous findings of a 30 percent decrease in the mortality rate following enactment of helmet laws (16, 7). The comprehensive 1980 NHTSA study analyzed the effect of the helmet law repeals and modifications between 1976 and 1979. NHTSA concluded that the weakening of helmet laws and the subsequent drop in helmet use was the single most significant factor in causing the 46 percent increase in the number of fatalities (13).

The second major argument concerning helmet legislation is the constitutionality of mandatory laws. Opponents question their legality and claim the laws protect them primarily from themselves and do not affect other members of the public. Motorcyclists feel they have a personal decision to make on the risk level they desire to face and claim the state surpasses police powers when mandating helmet use. However, the courts have not accepted this argument. The constitutionality of helmet laws has been upheld in 33 state courts and at least 5 times in the U.S. Supreme Court. Illinois is the only state where the highest courts have ruled that helmet laws are unconstitutional.

In 1972, the Supreme Court affirmed the Federal District Court decision in Simon vs. Sargeant confirming that a Massachusetts statute requiring protective headgear was constitutional. The court stated that:

> although the police power does not extend to overcoming the right of an individual to incur risks that involve only himself, the public has a legitimate interest if public resources are directly involved in those risks (13).

The court also stated that:

> From the moment of the injury, society picks the person up off the highway; delivers him to a municipal hospital and municipal doctors; provides him with unemployment compensation if, after recovery, he cannot replace his lost job, and, if the injury causes permanent disability, may assume the responsibility for his and his family's continued subsistence (5).

These comments created the "self-protection" theory which focuses on the interdependence of an individual's actions and the interests of the state. This theory has become the dominant factor in most court decisions. Other justifications for "self-protection" include the states interest in maintaining productive citizens, the effect of motorcycle accidents on insurance rates, the value of helmet use in relieving damages, and the policy against self-destruction and the preservation of life (5).

The final argument concerns the role of government in the lives of private citizens and the government's role in consumer protection. In this case opponents of helmet laws may recognize the benefits of helmet use by cyclists but differ from proponents on the question of individual choice. Motorcycle groups advocate limited government and argue for the right to choose and to non-interference from the state in the decision to wear a helmet. Motorcyclists believe that they are being discriminated against because motorists do not have to wear seat belts to prevent the same kind of "public burden" described by the courts. This argument has been weakened to a considerable extent by the recent Rule published by NHTSA in July 1984. According to this

Rule, 100 percent of all automobiles manufactured after September 1, 1989 must have automatic occupant restraints. These requirements will be rescinded if mandatory seat belt use laws are passed by a sufficient number of states to cover two-thirds of the population of the United States (6). In either case, intervention will occur at the Federal or state level with a reduction if not elimination of the right to choose.

The response to the 1976 Federal Highway Safety Act indicates that many states accepted the argument that cyclists should and would assume responsibility for their own protection. However, this did not occur. A study by NHTSA of helmet usage in pre and post repeal periods indicated a decline in helmet usage from 100 percent to 60 percent. In the case of crash involved riders helmet usage declined from 94 percent to 40-50 percent (13).

The failure of cyclists to take protective action on their own behalf reflects problems of risk perception and risk response. Riders may underestimate risk in the belief that accidents are rare events, only happen to other people, or can be prevented by appropriate evasive action. The incentive to wear helmets is thus reduced. In addition, helmets do not provide complete protection. In this sense the use of helmets is equivalent to probabilistic insurance. While society may with certainty anticipate that 100 lives will be saved as a result of helmet laws there is no guarantee to the individual that his life will be saved. As Fromm (3) pointed out this difference means that individuals are likely to undervalue life-saving programs. The realization that individuals are unwilling to protect themselves and the high social costs of automobile accidents led to the recent Rule concerning automatic restraints or mandatory seat belt use laws for automobiles. This Rule may, in turn, provide the stimulus for the reenactment of helmet laws and end a social experiment which has been costly both to cyclists and society as a whole.

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DISCUSSION

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INTRODUCTION AND COMMENDATION

The three articles in this session represent a healthy diversity in their approach to consumer protection. Collectively, they provide the kind of comprehensive treatment which characterizes ACCI at its best. The Dardis/Hersh article is classical cost-benefit analysis (in the context of more general questions), while Ursic takes an alternative route to assessing the impact of public policy. The Brannigan/Ensor paper takes a legal approach to a critically important area.

I will address my remarks first to Ursic, then to Brannigan/Ensor and finally to Dardis/Hersh. The degree of elaboration will be similarly ordered, with the bulk of remarks going to the last paper mentioned.

URSIC OR WARRANTIES

Let me begin by commending the author for his willingness to pursue the two studies commissioned by the FTC through the Freedom of Information Act. His actions in doing so may be recommended to other researchers.

The paper's major finding, it seems to me, is that the understandability of warranties declined between 1976 and 1982. That is a disturbing, if not altogether surprising, conclusion, which seems to warrant the author's conclusion that the FTC reexamine its position.

Any questions I might raise about the paper begin with the title: it seems to be rather more descriptive than analytical. That complaint may be the result of the studies with which Prof. Ursic had to work. He was limited in what he could say by what the studies had said.

Given that, he is forced to make comparisons which, by their very nature, involve some margin of error. The problem, as the author notes, is that the two studies were not constructed in a parallel fashion. Thus, in the key issue mentioned above, the 1976 study simply asked respondents to rate the understandability of warranties. By contrast, the two questions from the 1982 study both make assertions and asked respondents to agree or disagree. The attitude of one statement toward warranties is negative, the other positive.

That difference, it seems to me, weakens the authors' conclusions. Given respondents' sensitivity to the manner in which statement are phrased, the potential for bias appears serious. That, however, is an empirical question which itself could be tested.

BRANNIGAN/ENSOR ON PRODUCT CRITIQUES AND FIRST AMENDMENT RIGHTS

Most people here are probably less familiar with the approach taken by legal scholars, but in "Bose Coporation," Brannigan and Ensor present a valuable review of an issue with profound implications for a variety of consumer issues. Anyone who identifies with the consumer interest will be heartened by the broader protection the Bose decision affords product critiques.

My major concern may reflect my own lack of familiarity with legal methodology. Nevertheless, I am not convinced that the authors achieve their stated purpose of creating "a logical structure for defining the role of product critiques under the First Amendment." The section headed "Analysis," does explore the elements which would underpin such a structure (e.g., actual malice and opinion vs. fact), but the organization does not facilitate generalization.

Perhaps the authors could provide guidance for readers who are unfamiliar with the legal approach. Without such guidance, those of us in that category are likely to be overwhelmed by the qualifications and elaborations provided by the particular cases which bear upon the Bose decision. Logical structure implies a series of "if-then" statements. Were these statements identified, the reader would be able to generalize more easily. Without them, generalization is difficult and the force, even the significance, of the argument is diminished.

DARDIS/HERSH ON MOTORCYCLE HELMET LAWS

In their case study of motorcycle helmet laws, Dardis and Hersh provide a systematic approach to a complex issue. The complexities arise because the question can be approached at so many levels. As the authors note, cost-benefit analysis must be interpreted within the broader context of individual freedom of choice. Moreover, the history of helmet laws suggests that the political process must also be included in the argument. I shall address cost-benefit considerations first and then continue with comments on the broader issue.

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The cost-benefit analysis identifies the relevant considerations in both categories. Unfortunately, I found the manner in which the procedures were reported to be somewhat confusing. Data manipulations were necessarily complex, but this reader had problems in understanding precisely how information from the Fatal Accident Reporting System (FARS) was used to interpret the Abbreviated Injury Scale (AIS). Similarly, it is not immediately clear how the California data were used. The problem may be only editorial, but it should be addressed. The lack of clarity makes it difficult to assess the soundness of the procedures, which in turn breeds suspicion about the validity of the figures used.

If one ignores that problem, the authors' findings leave little doubt about the net benefit accruing from helmet laws. One must then ask: Given those benefits, why have the laws been so unpopular? As the authors imply, the answer to that question is a case study in itself. The repeal of the original helmet provisions demonstrates the power which groups can wield when organized around a specific issue. Benefits from helmet laws are in part societal, but the costs (or perceived costs) are personal. Thus, those opposing the laws perceive that they have more to loose than citizens at large perceive they have to gain. As the history of special-interest legislation illustrates, the minority can work its will upon the majority in such cases.

I do not feel that the argument can be left at that point, however, for it seems necessary to investigate the fierce reaction of those opposing the helmet laws. The cost of a helmet is minimal compared to the total cost of a motorcycle and potential discomfort seems similarly small. Why, then, such an intense reaction?

The answer to that question, I submit, has implications for a broad range of consumer protection activities. Time horizon, of course, is an issue, as is simple stubborness and human folly. I do not feel, however, that those explanations are adequate. I believe that the opposition to helmet laws is grounded in a distrust of efforts to protect individuals from themselves. That distrust, in turn, may be linked to a deeper — perhaps not wholly conscious — concern for individual liberties.

Might it be that the thinking goes something like this? If the government can control certain types of personal activities, what is to prevent that control from being extended? It is well documented, for example, that both smoking and (excessive) drinking are injurious to individuals' health. Those injuries impose serious costs on society through lost productivity, medical costs and accidents. One could well imagine that a convincing argument could be made in cost-benefit terms for the banning of both cigarettes and alcoholic beverages. One can also imagine, the "New Temperance Movement" notwithstanding, the public outcry which would result.

That, it seems to me, is the crux of the problem: how far does one carry such arguments? I would guess that in the motorcycle case, most people here would opt for helmet laws. Many of you may favor banning cigarettes and some might even oppose the sale of alcoholic beverages. Yet while we may need to be protected from ourselves, we may also need to be protected from well-meaning groups telling us how we should consume.

Unfortunately, the conventional analyses we commonly employ are useless in resolving this dilemma. Yet resolution seems to be essential for the provision of optimal levels of protection. The path to resolution is not immediately evident. It is evident, however, that resolution is impossible if the issue is not confronted. That may be where we can make a contribution as professionals.

There is a need for informed debate which airs the entire range of issues. Few public discussions can be characterized as "informed debate," but without such exchanges, it will be impossible to forge a broadly based consensus. Fears can never be overcome unless they are faced and they cannot be faced until they are articulated. By articulating the whole range of concerns and promoting an open exchange of ideas, we could all contribute to an improved environment for effective consumer protection.

THE CONSUMER IN A DEVELOPING SOCIETY[1]

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ABSTRACT

The economic development goals and policies during the last four decades have generated changes in the developing societies. Their stratified economies are characterized by heterogenous consumer groups and market structures. Many consumer programs are directed toward urban middle class consumers and generally ignore the urban and rural poor.

Third World countries, referred to here as the "developing countries", have certain general characteristics, such as relatively low per capita income, economic structures with occupational concentration in agriculture and livestock tending, little urbanization, high population growth rate and low educational levels. Efforts have been underway since World War II to improve the economic conditions of people in the developing societies. The economic development process, initiated by the developing countries, gained momentum from the actions of developing countries. Economic development became the goal of these countries. However, there has been changes in the policies and programs over the decades of development. These dynamics have influenced the welfare of the consumers in the developing societies.

The consumers in developing societies share similar economic problems though their socio-cultural environments are diverse. The socio-economic environment is transitional and the consumer group is stratified with subsistence level consumers at one end and urban elite with purchasing power to enjoy a western life style at the other end.

Hence the objective of the paper is 1) to review the various forces generating changes in the socio-economic environment, the problems in achieving broad based social goals through economic growth objectives, and their impact on the stratified consumer group, and 2) to identify consumer profiles to plan effective consumer programs.

INTERNATIONAL ECONOMIC DEVELOPMENT POLICIES AND THE CONSUMER

The emphasis of international economic development policies has changed from a trickle down theory to a basic needs approach over the decades. During these decades the focus on consumers has changed from consumers as wageearners, to consumers with special needs as a vulnerable group and now to a focus on all poor consumers who lack access to basic goods and services.

The most prevalent view in the 1950's and 1960's was the trickle down theory of economic development, in which development was seen purely as an economic phenomenon in which rapid gains from the overall growth of GNP and per capita income would automatically bring benefit to the masses in the forms of jobs and other economic opportunities(13). The emphasis was on job creation and income generation. However the distribution of income and essential consumer goods production and distribution were found to be inadequate.

In the next phase, the economic development projects placed emphasis on subpopulations with special needs. The vulnerable groups such as pregnant women, lactating mothers and preschool children were targeted for various nutritional and health programs (10).

Still more recently, the underlying concept has been to ensure to the most economically and socially deprived population the material necessities of life, the elements of consumption at minimum level considered socially tolerable. While basic human needs are partly conventional and hence vary among countries, it is nevertheless argued that there are minimum levels of consumption and access to public services that are essential to a decent living, everywhere. It is therefore possible to define targets in physical units on a global basis. For example, mimimum food and housing requirements can be defined quantitatively with reference to daily intake of calories, and square meters of dwelling space per person. Qualitatively they can be defined in terms of the proportion of protein intake and household facilities such as toilets, piped water, electricity and basic furniture (5).

INTERNATIONAL TRADE POLICIES AND THE CONSUMER

Multinational corporations entered the Third World market for two reasons: 1) highly populated countries supply cheap labor and 2) highly populated countries are viable markets. During the trickle down phase of economic growth, many Third World governments, which aspired to growth in GNP, backed by international aid funds opened doors for industrialization. These countries were profitable markets to sell technology and industry for the multinationals. But such collaboration generated mixed results. Multinationals provided income earning opportunities to the Third World people. To these fortunate few doors to improve consumption opened up. But the labor displaced through industrialization and export oriented industrial development suffered a loss of income. During this phase of growth a small proportion of urban elite with a western consumption orientation became both a dominant and a visible group of consumers. Though the economic growth of GNP was achieved, the benefits of growth did not trickle down to the lower levels as visualized.

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[1] Assistant Professor

However the needs of the visible urban consumers are taken as priority needs for all the consumers in the country by the multinationals. According to Ninan, "The American company's calculations show that Indian soft drink market is vastly unexplored. Annual sales are 60 to 80 billion cases in 1984, or two bottles per Indian per year. If the effective market (defined as those who have purchasing power) is assumed to be 150 million people, the per capita annual consumption would be around 12 bottles." (9)

Yet, during the current basic needs approach phase, multinationals have come under criticism for neglecting the social goals of providing adequate minimum basic services and safety to their employees. The multinational corporations' policies which allows the marketing of unsafe products and/or the products unsuitable for the local social-physical environment conditions among the Third World consumers have come to focus. The economic objective of growth must be re-examined for it's impact on the welfare of consumers in the developing societies.

INTERNATIONAL POLITICAL INTERACTIONS AND THE CONSUMER

According to Rolfe, "The conflict of our era is between ethnocentric nationalism and geocentric technology." (11) Conflicts between desires for political independence and aspirations for economic prosperity are common among the developing countries' policy makers. Such conflicts in international political interactions are illustrated in international trade and aid negotiations. South, the developing countries, demand increased aid and free trade, while the North, the developed countries are moving toward decreased aid and protectionism. Those developing countries, which received liberal western aid and bank loans during the trickle down theory phase, are now faced with reduced aid and pressure by IMF to reduce dependency. Though, in the long run, IMF policies may generate overall improvement in the economic health of many of these countries; in the short run the domestic economy is troubled. The current pressure to accept more flexible exchange policies, to cut domestic spending and foreign trade deficits, would mean higher taxes, less public spending and more strict credit in the developing countries (14).

ECONOMIC ENVIRONMENT AND CONSUMER PROFILES IN THE DEVELOPING SOCIETIES

In the developing societies the economic environment can be described as stratified economy, characterized by disparity in income and consumption opportunities among the consumers. Economic investments have paid devidends, but the dividend benefited a relatively small proportion of the consumers. Harrison sums up, "In most western minds, and in those of the majority of the Third World elites, development equals modernization and modernization equals the triumph of western materialism. It means the development of a consumer society of one kind or another. The choice of this model also implies the choice of a certain pattern of society and it leads to social polarization." (4)

The conflicts between growth oriented policies and welfare oriented policies are illustrated in every sector of the economy. In the marketing sector, for example, Indian advertising agencies want international affiliations to gain an edge with global clients who wish to market their products in India (4). However, the sophisticated advertising era will mean nothing to the poor consumer who deals with the bazaar economy and a barter system. Ball states, "India is now entering consumer age, with consumers demanding more products and services. Products demanded are motorcycles, cooking ranges, processed food and beverages, TV, hi-fi and video systems." (1) For the 50 percent of the population in India who live in poverty, these goods are not basic goods and services.

On the government delivery system, the complex and multitiered bureaucracy manned by the educated elite, is too complex to be understood and utilized effectively by the illiterate and poor consumers. The bureaucratic elite are the powerful middlemen in the public service delivery system and thus access to basic need services is beyond the means of low-income consumers.

Inflation has been eroding the value of the currencies in the developing countries. Inflation in Egypt is around 20 percent a year, in Mexico more than 100 percent, and the African nations have not escaped price spiraling (7, 12, 3). Blackmarkets have developed due to an acute shortage of essential consumer goods and at times for the illegally imported luxury consumer goods. These developing economies also have to subsidize the costs of many necessities of life to the consumers (7).

Population growth in these developing countries has aggrevated the problems of unemployment, low per capita income, nightmarish urban growth, and environmental destruction (8). Many developing countries do not include the population control variable in the economic progress equation. Economic growth achieved has not kept pace with the population explosion.

The social polarization that resulted from differential access to income and consumption opportunities produces a diverse profile of Third World consumers. The diversity in consumer groups is captured by Kapur on India, "The situation in India is an 'Island Republic of India' elite dedicated to the symbols, values and privileges of a consumer society in the midst of an ocean, that is 'Republic of India' where one third of the people are engaged in the daily touch and go survival and fifty percent compete endlessly and without success to get themselves accepted into the citizenship of 'Island of Indian Elite'." (6)

The consumer picture that emerges is one of groups of consumers with different needs, aspirations and access to resources. The conceptualized consumer classification presented here can aid in developing effective consumer research, education and advocacy programs (Figure 1). The consumer profiles have urban-rural and income level dimensions and the relevant product and service orientations. Urban rich and upper middle class set the trend for western life-style product consumption. This group creates the market for high priced products and luxury goods and services. The rural rich and urban middle class follow the urban trend setters and help to introduce modern life style in the rural sector. Urban middle and lower middle class strive hard to achieve the western life-style product consumption. Rural middle and lower middle class struggle hard to imitate urban middle class consumers. The popular products among the two groups are household appliances, medium priced entertainment equipment, and convenience goods and services. They are the potential market with growing consumption aspiration. The rural middle class also introduces consumer goods representing modernization in the rural environment. The urban and rural low income and poor consumers are struggling to maintain a subsistence level of living; they are the isolated audience to the consumption style of rich and middle class. They are striving to get basic goods and services from the market. The last two groups are those who are least benefited from "trickle down" of the economic growth and who are the main focus of the basic needs approach.

In the developing societies the economic exchange system that caters to the stratified consumer groups can also be conceptualized to have diverse structural characteristics. The market systems are classified as:

1. Organized formal markets which are visible and which utilize sophisticated western marketing methods.

2. Organized informal markets which are visible, but made up of local vendors who use traditional trade practices.

3. Loosely structured barter system, exchange goods and services, between families in rural sectors. The barter system is invisible to the extent that, no one in economic accounting and planning professions recognize the exchange. But to the villagers this system provides access to basic goods and services.

4. Black markets are invisible because they do not operate within the norms of law abiding social behavior. But they are prevelant in the Third World countries and can be very organized or loosely structured. The governments struggle hard to control the exchange of goods in this market, with limited success.

The stratified consumer groups are involved in exchange interactions in the various types of markets with different frequency and intensity. For example, the urban trend setters will do most of their purchasing in organized formal markets and relatively small purchases through barter. On the other end, the rural poor consumers will deal mostly in loosely structured barter systems and and make relatively small purchases through organized formal markets. The organized informal market, managed by the local vendors, link the modern urban sector with the rural sector.

CONCLUSION

The changes in the goals and policies of economic development have affected the consumers in the developing societies. The consumers in the developing societies are heterogenous groups functioning in a traditional socio-economic environment. In the developing societies the consumer problem is to make an effective consumer decision in order to obtain the best returns for the meager resources available in a transitional environment. Many consumer programs in the developing societies have effectively addressed the problems of urban rich and middle class consumers. But the problems of rural and urban poor consumers have not yet been studied adequately.

FIGURE 1. CONSUMER PROFILES IN A DEVELOPING SOCIETY

Income Level	Urban	Rural	Product/Service Orientation
Rich and upper middle class	Trend setters for western life style product consumption	Followers of urban trend setters	Automobile, TV, hifi, video and high priced consumer services and goods and imported products
Middle and lower middle class	Struggling aspirants to achieve western life style product consumption	Struggling aspirants for the urban middle class life style	Transistors, refrigerators, medium priced consumer goods and services
Low income and poor	Peripheral audience of the trend setters life style	Isolated onlookers of the urban middle and rural middle class life style	Minimum basic goods and services for survival

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CONSUMERISM IN SOUTHEAST ASIA: THE CASE OF SOUTH KOREA[1]

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BACKGROUND

Needs to societies differ at different times, but concern for consumers--improving the lives of individuals, families and communities in which we live--is fundamental to any society. Korea is not an exception.

Korea has a spectacular story of economic progress. For the last two decades, Korean economic growth has been one of the most rapid and sustained among the developing countries in the Southeast. Gross National Product (GNP) has increased, on average, more than 8 to 15% annually in real terms since 1962 when a series of economic development plans were implemented. In the economy, the focus changed from agricultural industries to heavy and manufacturing industries. Investment in production- and export-oriented firms has been one of the main concerns of the Korean governmental policy followed by national defense.

More consumers have become affluent today than in any previous generation. Disposable income per capita skyrocketed from $80 in 1962 to $1,500 in 1980. The 1976 data indicates that the lowest 20 percent of all household income is taken by 5.7 percent of all households while the highest 20 percent is assigned to 43.5 percent of all households.[2] This data may not be reliable since the statistician, under a government official, tends to distort the figures. Consumption patterns of households indicated that Engel's coefficient has slowly decreased from the 1960's (30%) to the 1980's (20%).

Due to the data limitation and lack of research regarding consumer experience in Korea, a comprehensive report about the current situation is not feasible. Thus, this paper is based on personal interviews with several significant consumer leaders, mass media including television, radio and newspaper commentaries, magazines, and my personal perception into the problems that Korean consumers face.

The history of consumerism in Korea is very short in comparison with the history of consumerism in the United States. In order to identify the underlying forces of consumerism in Korea, it is helpful to describe some of the consumer issues as they developed.

THE RISE OF CONSUMERISM IN KOREA

In general, the Korean consumer movement was triggered by two forces. One is the by-product of the First Five Year Economic Development Plan for the period 1962-1966. During this period, large investments were made by the government in firms which produce goods for export purposes. Domestic consumer markets were too small to generate rapid economic growth in a short period of time. Consequently, industries which produce goods for domestic use did not get government attention where government investment is crucial for launching a business.

The other was a campaign conducted by the government to encourage the use of domestic products during the late 1950's to the mid 1960's. These products were poor in quality and weak in durability, compared to imported products. As in Japan, the government tried to protect domestic industries by raising trade barriers against imports. The situation was worsened by predatory activities of sellers.

At that time, a group of women who became annoyed at predatory practices of sellers in the marketplace turned their attention to the consumer movement in countries like the United States and Sweden in order to learn about the consumer experience in these countries to see how consumer needs were reflected in policies. They were deeply moved by President Kennedy's Bill of Consumer Rights--the right to safety, to be informed, to choose and to be heard. The women are still active in improving the relationship between buyers and sellers providing services such as consumer complaints associated mostly with products and services, displaying shoddy products and publishing a monthly report of evaluation and comparison among the products in frequent use. However, in general, consumers are not likely to utilize such services because the majority of consumers do not have information about the existence of these resources. Besides, the information provided by the organization tends to be too inaccurate to be used in decision making due to non random sampling and large product quality variation. The mass media also played a role in the 1970's by sporadic reports regarding unsafe and shoddy products, adulterated foods, fraudulent sales practices and misleading advertisements. In the 1980's, frequent discussion of consumer problems in the mass media contributed to public awareness by clarifying what basic rights and responsibilities should be.

In Korea, there are as many as eleven private consumer organizations but their activities are very limited due to the lack of specialists and funds. Significant ones are the Korea Citizen's Alliance for Consumer Protection, Consumers Union of Korea, Public Interest Research Institute, Korean Women's Association, Korean National Council of Women, National YWCA of Korea, Korean Federation of Housewives Clubs, National Conference of Housewives and the Betterment of Homelife.

The National Council of Consumer Protection Organizations consist of five consumer organizations listed above which are corresponding members of the IOCU. Most of the private organizations publish a newsletter or magazine with product information for consumer education about specific products, results of simple product testing, and answers to consumer complaints. These organizations are funded by membership fees and/or subscription fees to magazines. Compared to the proportion of population in the United States who subscribe to consumer magazines, i.e. sub rates, Korea has a much lower subscription rate. Consequently, sales revenue coming from 8,000 magazines per month on average is too low to provide much consumer protection activity.

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[2] World Bank cautioned the use of these data.

There are as many as 15 to 20 pieces of consumer protection laws and legislation in such areas as food, drugs, electrical products, public health and product safety. The Consumers Protection Act which was implemented in 1982 is the most comprehensive stipulation of which objectives are to protect fundamental rights and interests of consumers and to improve consumer decision making.

Implementation of legislation is always a problem. The haphazard enforcement often results in benefitting business firms. Since government officials have to live on low salaries, their corruption is usually approved socially. For example, bribing public officials is frequently done by many drivers. Moreover, consumer protection legislation is often overruled by other pieces of legislation.

THE MARKET CHARACTERISTICS

Korean markets are producers' markets with high risks to the consumer. The seller is king. Consumer interests are ignored. Producers, frequently controlled by the government, decide what is to be produced and available in the markets. The revised sequence as defined by Galbraith, prevails in the majority of markets. Advertising and promotional practices frequently mislead the consumer with inaccurate information and distort consumer wants and needs.

Shopping activity in Korea is a war game. Consumers suffer from high risks in the marketplaces. Countervailing power is almost nil. Once goods are sold, refunds, replacement and repair services are hard to come by. Consumer redress tends to be an activity against the business goal of profit maximization. Maintaining a good personal relationship with the seller is the best way to get the most for one's money. A blatant example is often observed in the transactions for meat and vegetables which are sold unpackaged, since these products need to be graded by observation and weighed at the time of the transaction. Weighing and measuring devices are not standardized. Different product classes use different units of scale. For example, for vegetables one "kun" is 300g, while one "kun" is 600g for meat. "Kun" is a traditional measuring unit. Thus, it is difficult for the consumer to make price and quality comparisons within and across the product class(es).

Producers are not interested in consumer well-being in the long run. High profit in the short term is the single most important goal of producers. Certain products do not remain in the market long enough for the consumer to evaluate the product quality. Product services are often emphemeral. Accordingly, the product information or consumer experience is not useful for future use. Thus, Korean consumers tend to be intensive information seekers at the time of purchase.

Most Korean consumers prefer foreign goods over domestic goods for the following reasons: first, it is a higher status symbol for the consumer to buy foreign goods. Demonstration effect is strong for Koreans. Secondly, foreign goods, mostly imported from Western industrialized nations, have demonstrated consistent quality within the brand. Technical knowledge, necessary to improve ways to control product quality, has not been sufficiently developed due to the lack of expertise.

Another reason is that application of basic science--physics, mathematics, chemistry--to the real life situation, which is necessary for improving the way of life, is not well studied in the realm of academic discipline. Consequently, social contribution to applied science such as consumer economics to improve the quality of life is at a disadvantage.

In sum, high risks in the marketplaces, i.e., product hazards, sellers' chicanery, deceptive advertising, and health and environmental problems have prevailed and become one of the major interests of the general public. Such interests are evidenced by mass media, i.e., TV, radio and newspaper commentaries, consumer complaints, and medical redords.

SUGGESTIONS FOR FUTURE CONSUMERISM IN KOREA

Problems of Korean consumers are multidimensional: consumer powerlessness, irresponsible business practices and the government's low priority setting on consumer well-being. To improve the position of consumers in the marketplace, the following are suggested: identification of consumer needs is the most important step in order to get the best result at the minimum cost where taxpayer's money should not be wasted. To do so, adequate consumer research is needed to identify consumer experience in Korean markets. For example, owning a car is highly costly in terms of safety. Korea has the highest car accident rate in the world. Design defects and the use of parts with unset standards are a severe problem as well as unsafe road conditions. Car manufacturers do not want to take any level of responsibility for what they produce. Consumers do not have information regarding the full cost of owning a car where producers do not want to release the information. In this case, using medical records regarding injury rates of various makes and models of cars by degree of severity can be useful data for safety comparison. With such information, the government would have a base for setting safety standards. Also, consumers would be educated about the possible hazards and could be educated to demand safety.

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OPPORTUNITIES WHICH MATTER: FROM APPROPRIATE TECHNOLOGY TO APPROPRIATE RESEARCH

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ABSTRACT

Research on topics affecting consumers at the edge of subsistence has exceptional importance; indeed consumer emancipation is the ultimate goal of development. The paper outlines nine topics worthy of attack, urging ACCI researchers to choose targets within their specific fields of expertise in an effort to match world research resources with urgent needs.

TESTING RESEARCH APPROPRIATENESS

If there are any scientists in the community of scholars who have a special edge in ensuring that their research is meaningful, it should surely be consumer researchers. This is because, whatever our particular interest, we are all familiar with the consumer testing procedure. It is a short step to apply similar testing to our research. And if we ask where our research methods will have the highest payoff, it will surely be on topics affecting consumers living right at the edge of subsistence.

This research is not easy. Consider as one example Hans Thorelli and Gerald Sentell's monumental work on consumers in Thailand. This was a million dollar research project which took several years to complete. The program included the interviewing of a thousand consumers in four different regions of the country. Imagine the difficulty of administering and interpreting an interview schedule among respondents whose culture obliges them to show kreing chai, meaning they must be excessively considerate (that is "excessive" from a western point of view) and put much importance on avoiding embarrassment to themselves and to others. I do not point this out to say that the twin dangers of ethno-centricity and the "social desirability" response are so great as to defeat the project entirely, because the research, in my view, does make a major contribution. But it is worthwhile to recognize the degree of difficulty. At the same time, the social payoff to original research is much higher than to re-testing a hypothesis that has been widely researched already. In the words of the Danish philosopher Piet Hein "Problems worthy of attack ... Prove their worth by hitting back."

THE APPROPRIATE PRODUCTS APPROACH

How do we decide upon just which problem is worthy of attack? We have the advantage of that bent of mind which causes us to ask ourselves how our research might benefit the ultimate user. I think too, that among all the research paths we might take there is a "turnpike" which can speed us to the frontier of knowledge. It is based on the old debate in the 1960's and 1970's about "appropriate technology." You recall how that debate showed, for example, that it was not always wise to use fork lift trucks (high tech, nowadays) in third world situations where there are no spare parts but there is low cost labour. This whole debate was highly useful - but not so useful as it might have been. The reason is that the debate had its focus on the means (technology) rather than on the ends (want satisfaction). I have worked with some others at the International Organization of Consumers Unions to make what I think is a step forward by looking at appropriate products rather than at appropriate technology. The reason this matters is that producers could use the most appropriate technology available to make a product (service) which is defective, useless or downright harmful. Clioquinol provides a chilling example. The product was widely marketed to countries in the third world long after being banned in countries with effective health protection agencies, banned because the product was not effective for the purpose claimed (for general diarrhea) but all too effective with side effects ranging from blindness to lower limb paralysis.

It is a short step from appropriate products to appropriate research but it may be worthwhile first to take stock of the research weapons that could be deployed on important third world problems.

THE EYES HAVE IT

Firstly, if you plunk a consumer researcher from a richer country into the Klong Toey slum in Bangkok, what he or she will see will be affected by what he or she has to see with - the cultural experience and the research methods that allow one to see and understand (or misunderstand). I find it very helpful to recognize that a consumer making a purchase decision rarely faces an absolutely new choice and the consumer rarely faces the decision with no help whatsoever. I use the concept of consumer search capital (CSK) to account for the accumulated stock of decision making rules and methods which the consumer can deploy. We researchers have a similar stock of search capital. Some may be trained in interviewing techniques, others in psychology, statistics, etc. The problem is to discern which part of this research capital will help with the big problems in the developing countries and which part will be so inappropriate as to hinder our vision.

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The researcher's capital may need to be increased by additional "investments" to allow one to transfer to the study of important third world problems. I have argued elsewhere that the ideal researcher would be someone from the developing country itself. On grounds of cultural capital this is undoubtably correct. Yet the number of such researchers willing and able to contribute is far too small, and research funds are virtually unobtainable. I recall all too clearly the presentation made in Jakarta once by Professor and pathologist, Doctor Iwan Budiarso on a research project - funded by himself - involving clioquinol administered to monkeys. He presented a film showing what happens when the drug is given to the subjects. The lower limbs became permanently paralysed. It was a touching moment as the film was being watched by Yoko Kigasawa, herself paralysed by the product. My point is this: No research funds were available for this research and the whole project was filmed on Dr. Budiarso's own 8mm camera. Third world research obviously needs all the help it can get.

Secondly, what we see is determined not only by our eyes and our interpretation skills but by where we choose to look. You are reminded, therefore, by the futility of the technique widely known as "the principle of the drunkard's search." The drunk, on hands and knees under the streetlight is asked by a policeman, "What are you doing?" "I'm looking for my house key." "Where did you lose it?" "Down the street." "Then why are you looking here?" "Because the light is better." The payoff from looking under the bright light of existing data is not always high. And it is quite unlikely that we will find the key to vital third world consumer problems "worthy of attack" by re-hashing an old topic from the existing western literature - just as the drunkard will not find his key by looking under the existing light.

SOME VARIABLES TO CONSIDER

Let me update my earlier view on some of the variables which need attention in a discussion of appropriate research. [Kerton, Lim and Vermeer, 1982.] For an explanation of consumer behaviour we must recognize that some decisions are more difficult than others. The following ratio summarises a worthwhile aspect of the degree of difficulty in making an appropriate choice:

$$D = \frac{TS}{K_1 + K_2 + K_3} \qquad (1)$$

D is the degree of difficulty
T is the technological complexity of the product
S is seller sophistication
K_1 is the individual's consumer search capital
K_2 is the collective consumer search capital or the public resources which can help an individual assess the choice.
K_3 is collective CSK in the voluntary sector, citizens action groups, consumers associations and other aids.

As one example, consider the difficulty of choosing the best bicycle in a developing country. In the Fong Chan Onn study of bicycles in Malaysia the T should be fairly low. He found "that the two main characteristics that affect a consumer's choice are economy and reliability" [1984, p. 68]. For an established product like a bicycle perhaps these characteristics are not excessively complex. Since the seller is probably not using motivational research or high-priced selling talent, S will be low too. If the individual has had experience with bicycles and with purchases then K_1 will be significant. K_2 may depend on the existence of fair trade laws, and K_3 may be a consumers association which tests bicycles. On the whole, for this product TS is relatively small and the denominator relatively large, so D, the degree of difficulty is not large. By way of contrast, the D for brands of penicillin may be much larger. The numerator portrays the information requirements while the denominator measures the ability to seek it out and make use of it. What then, do these information conditions mean for appropriate research and for appropriate action?

INFORMATION NEEDS FOR APPROPRIATE DECISION

Quite a number of problems with appropriate product choice can be traced to the unintentional or deliberate misinterpretation of messages which originate with sellers. The notion that all advertising is "information" bears little relation to reality. And there is little indication that sellers believe that the primary objective of advertising is to inform. For example, the executive vice president of the American Advertising Federation has objected to poison warnings on domestic goods and pollution caveats on certain detergents as "opposed to the whole concept of advertising ... we are opposed to the whole concept of warnings in advertising because our primary purpose is to sell. If we do inform, it is only in order to sell ..." (Jonah Gilnitz).

Tactics designed "to sell" can and do create problems with luxury goods and this is serious enough. But with goods which are supposed to meet basic needs, the problem with selling tactics is downright distressing to say the least. Yet the experience of IOCU and its developing country members provides ample evidence of product choices which are confused and of consumers who are harmed by seller-generated information. The point is evident in Charles Medawar's Insult or Injury, and it plays a prominent role in the ILO case on detergents investigated by James [1982]. One easily-understood example of a seller practice which is decidedly dangerous and which was widespread in Asia is the promotion of sweetened condensed milk for infants - despite the WHO appraisal that it "... is not suitable for infant feeding." Instructive in this regard are the product labels and examples promotional material collected in member countries by the Asia/Pacific Office of IOCU. The assembly of this material - particularly for products which are to meet basic needs - deserves to be given more impetus: it should be more deliberate, more systematic and it should proceed more quickly. It is research which deserves the support of the United Nations and outside funding agencies.

A special problem worthy of research concerns the whole class of goods and services created for conditions in developed countries but now being thrust on third world consumers whether appropriate for conditions there or not. There are many cases where traditional products are superior to modern ones but sophisticated selling techniques, inferior information and inadequate consumer search capital prevent consumers from knowing the facts; and it therefore keeps them from making appropriate choices. A number of policies can lead to improvement, and some of the following should produce immediate results for appropriate product choice.

TOPICS WORTHY OF ATTACK

The ideal method of establishing research priorities would be to allow people in the developing countries themselves reveal their preferences. While this sounds very expensive and is nearly impossible (as Thorelli and Sentell found) there may be a method of increasing our attentiveness so that we can pick up the small "voices" which exist. To do this, researchers need to pay scrupulous attention to individuals and to groups who do voice their views. This would include consumer organizations, citizen action groups, local researchers and any other source with the appropriate CSK. As an illustration of how an imported researcher, acting alone, might go wrong, consider the Klong Toey slum in the port area of Bangkok. A western researcher is sure to have his senses slammed by the smell and the rubble, a squalid mixture of waste paper, human and animal excrement and idle water. In a visitor's mind priority is sure to be given to sanitation. But the slum dwellers themselves put sanitation far down the list behind fire protection, security of tenure and clean water. When one recognizes that the shacks and walkways are stacked close together, all are made of dry wood from packing cases and the like, and the whole kindling pyre is elevated over the swill at the edge of the Chao Praya river for effective up-draft, then the felt need for fire protection becomes readily apparent. The single mistake of knocking over a kerosine cooking pot in one shack can - and has - wreaked havoc on thousands of sleeping neighbours.

In spite of these difficulties it is still possible to do important work - and to set priorities. Given that life is at the edge of subsistence, it is a sound rule to start with research topics on methods of meeting basic needs. Some basic need topics are listed here:

Identification of "essential characteristics"

One can make use of the "characteristics" approach of Stigler (1945) and Lancaster (1966). We need research into the fundamental components of products or into methods of meeting basic needs like food, security and shelter. The scientific component of the capital of nutritionists, engineers, social scientists and others surely have a high payoff.

Historical and cultural experience in meeting basic needs

Each country has specific scarcities, cultural taboos and the like but research into successful methods for meeting basic needs should provide a menu of possible solutions. This is surely worth exploration.

Diffusion research

Information has the characteristic of a public good so it is wasteful for one country after another to invest resources to discover what is already known elsewhere. The lag between the time consumers in richer countries have information on product hazards, defects, or side effects and the time consumers in poorer countries get this information must be reduced.

De-mystification of artificial complexity

Some products genuinely are technologically complex; others have characteristics which should be easily understood but which have been mystified by seller. Acetylsalicylic acid provides a simple example. Consumers in some countries pay eleven times as much as consumers in other countries for aspirin. Note that this problem is not unique to developing countries but their consumer research base is especially low and seller-generated confusion may therefore be relatively easy.

Seller responsibilities

Appropriate product choice is thwarted by the combination of seller sophistication and advertising excesses. A minimal position which surely is not controversial is to enrich the UNCTAD code for fair trading and to create a law in each developing country which prohibits sellers from making claims for products where the claim is not allowed in the exporting country. Likewise, when side effects, product defects, or hazards must be revealed in the markets of industrialised countries these same facts must be revealed elsewhere. We need research into the institutional possibilities.

Legal research

To get beyond technical concealment (where science hides facts) and to deal with economic concealment (where sellers have an economic incentive to hide facts) a principle must be established whereby sellers are liable for information which they know but have chosen not to reveal.

Investment in consumer search capital of the individual

Consumers in developing countries have an urgent need for the types of searching skills which are effective in contemporary situations (K_1, K_2 and K_3 in the above ratio). In addition, research is required to see if there are methods which provide a "fast track" for these investment. This is necessary because to the extent that family life, purchasing experience and schooling are important, this policy is long run in nature. Most of the items which need research here are already included on the outlines of consumer studies courses currently being taught. No doubt it is true that the "skill-building" techniques will need to be adapted to local circumstances but the "general" skills may need few changes. Lower incomes in developing countries provide motivational advantages for the teaching/learning of useful skills.

Research on collective consumer search capital

Efficient consumption choices often need complementary capital in the form of public CSK (K_2 in the ratio). This can mean a functioning Food and Drug Inspectorate or a Weights and Measures Bureau, and other public agencies. Again, considerable research expertise exists on these matters and if we can deploy it to avoid the worst regulatory abuses of the consumer, and to help devise appropriate agencies, much can be accomplished.

Research on Voluntary Agencies

The scarcity of public funds means that "expensive" government agencies will not be funded well enough to be effective in poorer countries. It is therefore more important to take advantage of collective voluntary efforts (K_3 in the ratio above). As Maynes (1981) has pointed out in a different context, research is needed to discover the least costly methods of improving consumer well-being.

RESEARCH FOR PRACTICE: HAPs AND GIPs

For operational purposes it is possible to use the notion of a grossly inappropriate product (GIP) and a highly appropriate product (HAP). Unfortunately HAPs may be fairly rare because wide agreement is necessary and tastes must be similar. Perhaps clean water is an example which will suffice. The IOCU seminar in Penang examined in detail some GIPs (pronounced no doubt as "gyps") and there was wide agreement on the need for circumscribing their harm. But between these extremes an "appropriate" product (AP) is harder to agree upon. It is one which delivers the desired characteristics at least cost and which contains few or no undesired characteristics. A product can thus be inappropriate for reasons relating to the characteristics or for reasons relating to the costs. This suggests that appropriate research is research which (1) identifies the actual and/or ideal characteristics in a product (these may be technical or psychic); (2) evaluates the characteristics (both the scientific performance and the cultural context) and; (3) appraises the cost. The latter should include not only marketing schemes, such as monopolies, but also the full cost of production and post-purchase costs relating to hazards or environmental damage.

Research seems to have two meanings. To consumer action groups, the existence of outrageous exploitation calls for research to get the facts straight and to stop the abuse. To academics concerned about the unfair market systems the word has a longer run meaning. This deals less with what is now known and more with advancing the frontier of knowledge. This has an absolutely vital function in economic development: indeed it is hard to imagine what economic development would mean without consumer emancipation. For this analysis I find it helpful to distinguish between "consumer information" functions and "framework pressure" functions. The latter is an attempt to deal with unfair market systems (lack of standards, food adulteration and a host of other problems) by pressing for a fairer framework of rules. This changes the distribution of power and improves the distribution of income.

Consumer participants at the Penang conference from Brazil, Hong Kong, India, Indonesia, Malaysia and the Philippines showed very clearly that some institutional environments are more hostile to consumers than others. In my visits to a number of Asian countries on behalf of IOCU I found that consumer associations in developing countries spend a good deal of effort on this broader task of framework pressure. In much the same way appropriate research (on longer run problems) leads to appropriate action on the rules of the game. GIPs, for example, can be prohibited in advance. As experience has shown, this can often lead to higher payoff than emergency actions or "firefighting" after the harmful product has been marketed.

APPROPRIATE RESEARCH

We can avoid the pre-judgement that product-testing is the only or even the primary type of research needed. The prior question concerns the identification of the basic want and the investigation of the best ways of meeting each need. This may not involve a product at all. The most convincing example may be the superiority of breast milk over the purchased product, breast milk substitute. On this score, some of our current research is short-sighted. Testing cola for sugar can be likened to re-arranging deck chairs on the Titanic. It is necessary first to ask the more basic question about the appropriate product for looking after thirst. There are research agencies which have undertaken this (such as the International Food Technology Research Institute in Mysore, India) but very few.

Research on consumer information is indeed vital, but too close a focus on that issue can miss other topics which offer larger rewards to consumers. Framework pressure leads to important changes in the distribution of economic power. Information sharing lowers consumers' costs, increases the HAP to GIP ratio and shortens the period during which consumers in poorer countries are exploited.

On the immediate question of product investigation, we need to take a broader view, as some researchers now recognize. The *employment* requirements of alternative products often matter a lot. And we need to combine attention to *current* product performance with *forward* effects such as disposal problems, pollution and social hazards. The combined perspective is broader and more fruitful.

There are some obvious places where practical problems plead for research. Research is needed into new testing methods so that HAPs and GIPs can be more readily - and more economically - distinguished. New methods must be devised to allow consumers in developing countries to voice their views. New and low-cost public policies for appropriate products need to be created. We need basic research on how and why the economic events unfold the way they do - and this research must be from the consumer's point of view rather than the seller's. If that agenda is not already large enough, political scientists and others need to give creative thought to ways of getting policy makers to give real attention to an appropriate product policy.

We all know that research funds are available for projects like the ones which test consumers to see how they respond to a larger size of aspirin tablet or clothes which are whiter than white. Any many more funds are available for topics like that than for projects which improve the human condition without resulting in marketable products. Beyond that though is the staggering inequality in the world distribution of consumer researchers. There is no way to avoid the plain fact that some are in Europe and the vast majority are in the United States. There are people trained in economics, home economics, social psychology, statistics, housing, legal research, social action etc. Given the worldwide imbalance, the ratio of research problems to research talents is sharply different in the United States and in developing countries. An ideal arrangement might be the twinning of research institutes in two countries. The personal satisfaction and the social payoff to work on problems of the developing countries are both very high. It isn't always fun to leave the comfort of the streetlight or to be hit back, but the problem is worthy of attack.

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The Impact of High Housing Expenditures On Other Consumer Expenditures[1]

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ABSTRACT

The impact of high housing expenditures on other consumer expenditures was analyzed for households making mortgage payments. Multiple regressions of expenditures on income, family size, age, education, and occupation were run. Regressions of expenditures on predicted expenditures and residuals of housing, health care, and transportation expenditures revealed little in the way of direct associations between excess spending for housing on other categories. Households seem to deal with high levels of housing spending which may be "forced" upon them by dissaving rather than by cutting back on other spending.

INTRODUCTION

For over 100 years, the rule of thumb for family housing expenditures has been that no more than 25 percent of income should be spent on housing [2]. This rule was originally based on observations of renters by Ernst Engel and others [2]. Later, mortgage lenders used the 25 percent rule. [2] Some, but not all statistical analyses of the relationship between the housing expense-income ratio at the time of the loan application and the probability of default show that a higher housing expense ratio is related to a higher risk of default [2].

Mortgage default is an extreme outcome with several possible causes. Many defaults are difficult to predict on the basis of the expense-income ratio, as defaults are often related to "random" events such as divorce, disability, and unemployment. Default is not the only outcome that merits examination. High housing expense-income ratios may also be related to other less drastic, but stressful, outcomes.

The purpose of this paper is to ascertain the impact of high housing expenses on other household expenditures, for a sample of homeowners with mortgages. In addition, the impact of high health care expenditures and high transportation expenditures, will be investigated. If at some point in time a household is spending a higher than average proportion of income on housing, it must be spending a lower than average proportion of income on some other consumption categories, or saving less.

Expenditures on a good depend on consumer preferences, prices, and income, although for some products such as housing, there may be additional constraints imposed by government. The standard indifference curve analysis of consumer demand implies that consumers will respond to changing relative prices by changing their purchases of products. The usual method in economics of relating one expenditure to another is to calculate cross-price elasticities. A high cross-price elasticity would indicate that when the price of one product increased the demand for the other product would decrease.

Expenditure systems which have been estimated from time series data have produced estimates of low, and sometimes insignificant compensated cross-elasticities between major expenditure groups [1]. It is difficult to obtain valid price information for a cross-sectional sample, and appropriate price information is not directly available on the Bureau of Labor Statistics Survey of Consumer Expenditures data tape. In addition, some household budget problems, such as catastrophic uninsured medical expenses, are primarily not a price phenonomen.

Minimum standards for housing, along with survival requirements, may force low income households to spend a high proportion of income on housing. Permanent income theory [3] implies that households will try to maintain housing and other expenditures at a constant proportion of expected lifetime income. Thus, a household with current income below permanent income would spend high proportions of current income on all consumption items.

There is limited evidence on the impact of high housing expenditures on other spending. A study of recent homebuyers in Lincoln, Nebraska found that half said they were making some sacrifice in food spending as a result of buying their homes [5]. About 21 percent said they were decreasing medical care expenditures, 52 percent were decreasing transportation expenditures, and 59 percent were decreasing clothing expenditures. About 62 percent reported sacrificing vacations because of the home purchase. Only 2.7 percent reported making a large sacrifice in food spending, whereas 13.8 percent reported making a large sacrifice in vacations. [5]

THE MODEL

In this paper, the concept of excess housing expenditure is operationalized as the amount above the mean expenditure level of households with similar income and household characteristics. A regression of housing expenditure on demographic variables is run, and the regression coefficients are used to calculate for each sample household the "predicted" value of expenditure. Only income and other household characteristics are included in the regression, as geographic variables may influence housing expenditures through price rather than income variables. The difference between actual and predicted housing expenditure is the residual, and it is hypothesed that other expenditures may be influenced by the residuals based on the housing expenditure regression.

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For each consumption expenditure category, a regression is run on demographic variables, so that the "predicted" expenditure level for households can be obtained. The impact of the housing residual on expenditure for food can be estimated by regressing actual food expenditure on predicted food expenditure and linear and quadratic variables for positive and negative housing residuals. Similar regressions are run for other consumption categories.

It is assumed that in the short run, housing expenditures are a constraint with which a household must deal. There may also be a constraint on transportation expenditures for workers who choose to live far from their jobs in order to reduce housing costs. The same procedure used to define excess housing costs is also used to define excess transportation costs. Health care costs may also pose a constraint, so excess health care costs are defined in the same way. If high expenditures for housing, transportation, and health care do not have impacts on other expenditures, permanent income theory may provide a more plausible explanation for household expenditure behavior.

Expenditure Categories

Expenditure categories are defined with the categories broad enough to ensure that few households had zero expenditures, so that ordinary least squares regressions would not be biased. The food category includes all food purchases, including food away from home. Housing includes shelter (rent or the interest portion of mortgage payments), plus insurance, property taxes, fuel and other utilities, repairs, improvements, furnishings, and equipment. One advantage of using a relatively broad category for housing is that comparability problems are reduced. For instance, one family may buy a house which includes major appliances and perhaps even some furniture, while another may buy a house with nothing in it. One family may buy an energy efficient house for a high price, while another may buy a cheaper house with high energy bills. Comparisons between homeowners and renters involve similar problems if mortgage payments are compared to gross rent. Transportation includes expenditures for all forms of transportation, except for recreational vehicles, vacation trips, and nonpleasure trips. Health care includes all medical insurance premiums, plus all expenditures for doctors, dentists, hospitals, medicines, etc. Clothing is combined with jewelry into one category. All other consumption expenditures are lumped together. Important components of the other category include alcohol, tobacco, insurance, gifts, vacations, recreation, and education.

The Sample

The data for this analysis are from the public use tape file from the expenditure data collected in the quarterly interview component of the 1972-73 Consumer Expenditure Survey of the U.S. Bureau of Labor Statistics. As of February, 1985, more recent tapes are not available from BLS. The same procedures can be applied to the 1980-81 data when it is available for researchers outside of the Bureau of Labor Statistics. Housing prices, financing costs, transportation costs, and health care costs all increased substantially between 1973 and 1981, so a comparison would be of great interest. This paper will provide benchmark information, so that comparisons with the 1981-1982 BLS data can give information on the changing role of housing, transportation, and health care expenditures in family budgets.

For this paper, only the 1973 portion of the sample is included, as it is more recent and therefore more relevant to current issues. Furthermore, for simplicity, only households which owned their homes and had made mortgage payments all year are included. There are 3,448 homeowners with mortgage payments out of the 10,106 households in the 1973 interview file.

One difficult issue in analyzing expenditures is treatment of households with zero or negative incomes. These households often have their own businesses and have losses in some years. In this sample, 6.2 percent of the households had zero or negative incomes, with three households reporting negative income and 219 reporting zero income. Their expenditures were similar to those of the households with positive incomes. The mean total expenditure level for households with zero or negative incomes is slightly higher than the mean for households with positive incomes.

It seemed appropriate to exclude the zero and negative income households from this analysis, as inclusion in the regressions would obfuscate the relationships between income and expenditures.

TABLE 1. Medians, 5th, and 95th percentiles of expenditures as % of Income, for homeowners with mortgages and household incomes > 0 , 1973 U.S. BLS Survey of Consumer Expenditures. (N=3,226)

Variables	5th percentile	Median	95th percentile
Total	$5,050	$12,200	$24,300
Gross Income	5,100	16,200	35,400
Food % of Inc.	5%	14%	37%
Housing % of Inc.	8%	19%	43%
Trans. % of Inc.	2%	10%	41%
Health % of Inc.	1%	3%	11%
Clth. % of Inc.	1%	4%	11%
Other % of Inc.	8%	19%	40%
Total % of Inc.	44%	76%	145%

TABLE 2. Regressions of Expenditures on Demographic Variables, Homeowners With Mortgages, Incomes > 0, 1973 U.S. BLS Survey of Consumer Expenditures (N = 3,226)

Variable	Food	Housing	Transportation	Health Care	Clothing Jewelry	Other Consumption
Annual Income	0.044	0.090	0.074	0.020	0.037	0.187
Income Squared	-9.816E-8		-1.778E-7		-8.071E-8	-4.245E-7
Income Cubed		-4.266E-13		-9.978E-14		
Family Size	411.359		96.274	110.814	72.308	
Family Size Squared	-11.991			-8.751		
Age	81.764	-17.791				108.147
Age of head squared	-0.748			0.064		-0.998
Education < 9 years		-255.372				-624.260
Education 9-11 years					150.942	-356.774
Education 13-15 years		342.758				
Education > 15 years		659.436	-454.499			447.538
Occupation Blue Collar		-289.563	265.951		-136.852	
Occupation Self Employed						145.089
Occupation Prof.,Mgr.						367.528
Retired					-141.319	
Constant	-1636.443	2427.271	736.306	-125.738	-28.536	-2296.220
Adjusted R^2	0.315	0.367	0.100	0.091	0.339	0.472

(All variables significant at .01 level.)

RESULTS

Descriptive Statistics

The fifth percentiles, the medians, and the 95th percentiles for six expenditure categories are presented for homeowners with mortgages and positive incomes (Table 1). Relatively few households have a high percentage of income for housing expenditures , with the 95th percentile of households spending 43 percent of income for housing.

Regressions of Expenditures on Demographic Variables

In order to define the "predicted" expenditure levels for households, stepwise regressions were run of each expenditure category on income, income squared, income cubed, mean family size for the year, family size squared, age of head, age squared, and dummy variables for education and the head's occupation. Only variables significant at the .01 level were entered into the regressions. The dummy variables for clerical/sales, service, and unemployed did not enter any of the regressions. The independent variables accounted for nine to 47 percent of the variance The effects of income on each expenditure are approximately linear over an income range representing most of the households. Food expenditures increase with family size quadratically, with the rate of increase declining as family size increases. Expenditures increase linearly with family size for transportation, clothing and jewelry, and other consumption, and decrease with the square of family size for health care. Food expenditures increase with age up to age 55, then decrease. Housing expenditures decrease linearly with age. Health care expenditures increase with the square of age. All other things equal, a household headed by a 65 year old would have health care expenditures $102 higher than a household headed by a 25 year old. Other consumption increases with age up to age 54, then decreases slightly. Higher levels of education are related to higher housing and other expenditures, and lower transportation expenditures. Blue collar employment is related to lower housing and clothing expenditures and higher transportation expenditures.

At mean values of variables, the income elasticities are .29 for food, .48 for housing, .52 for transportation, .57 for health care, .72 for clothing and jewelry, and .85 for other consumption. Based on the cross-sectional data, the income elasticities suggest that a drop in income below the mean income would produce a small percentage drop in food expenditures, a larger percentage drop in housing expenditures, and larger percentage decreases in transportation, health care, clothing and jewelry and other

TABLE 3. Predicted Expenditures by Income, for Family of Four, Head Aged 40, Blue Collar, With 12th Grade Education. (Based on regressions in Table 2.)

Income	Food	Housing	Transportation	Health Care	Clothing	Other Consumption	Total	Total/ Income
5,000	2,108	1,876	1,753	380	307	1,357	7,781	156%
10,000	2,321	2,326	2,110	480	486	2,260	9,982	100%
15,000	2,529	2,775	2,457	580	661	3,142	12,143	81%
20,000	2,732	3,223	2,796	679	832	4,003	14,264	71%
25,000	2,930	3,669	3,126	778	998	4,843	16,344	65%
30,000	3,123	4,115	3,447	877	1,161	5,661	18,384	61%
35,000	3,311	4,558	3,760	976	1,320	6,458	20,381	58%

consumption expenditures.

Predicted expenditures are presented by income in Table 3.

Predicted expenditures are also presented by age of head in Table 4. Despite the decrease in housing expenditures with increasing age, total predicted spending increases up to age 50, then decreases slightly. The decrease in housing expenditures is more than made up for by increases in health care and other expenditures. The low food expenditures for the younger ages might result from the smaller requirements of very young children, as family size is held constant in this table. Total spending is 75 percent of income at age 25, so young homeowners do not seem to be overspending on the average. Transportation and clothing expenditures do not vary significantly by age of head.

Total spending increases with family size, from 69 percent of income for a one person household, to 90 percent of income for a seven person household (Table 5.) Large families do not seem to compensate for increased need for food by cutting back on other spending. Housing and other consumption do not vary significantly by family size.

Analysis of Residuals

Based on the regression coefficients, predicted expenditure levels are calculated for each household, and the residuals (actual minus predicted expenditure) are calculated for housing, transportation, and health care expenditures. New variables are calculated as shown below, where "p" refers to positive residuals, "n" refers to negative residuals, and "Sq" refers to the square of the residual.

Excess housing expenditures:
Dhsp=actual-predicted housing, if >0,

else=0

DhspSq= Dhsp x Dhsp

TABLE 4. Predicted Expenditures by Age of Head, For Households With $15,000 Income, Family Size of Four, Head Blue Collar, With 12th Grade Education.

Age	Food	Housing	Health Care	Other	Total/ Income
20	1,791	3,130	503	2,177	71%
25	2,032	3,041	517	2,493	75%
30	2,235	2,953	535	2,759	77%
35	2,400	2,864	556	2,976	79%
40	2,529	2,775	580	3,142	81%
45	2,620	2,686	607	3,259	82%
50	2,673	2,597	637	3,326	82%
55	2,689	2,508	671	3,342	82%
60	2,668	2,419	708	3,309	81%
65	2,609	2,330	748	3,226	80%

TABLE 5. Predicted Expenditures by Family Size, for Family With $15,000 Income, Head Blue Collar, Aged 40, With 12th Grade Education.

Family Size	Food	Transp.	Health Care	Clothing	Total/ Income
1	1,475	2,169	378	444	69%
2	1,850	2,265	463	516	73%
3	2,201	2,361	530	588	77%
4	2,529	2,457	580	661	81%
5	2,832	2,554	612	733	84%
6	3,112	2,650	626	805	87%
7	3,367	2,746	623	878	90%
8	3,599	2,842	603	950	93%

Low housing expenditures:
Dhsn=actual-predicted housing, if <0,
else=0

DhsnSq=Dhsn x Dhsn

Excess transportation expenditures:
Dtp=actual-predicted transportation, if >0,
else=0

DtpSq=Dtp x Dtp

Low transportation expenditures:
Dtn=actual-predicted transportation, if <0,
else=0

DtnSq=Dtn x Dtn

Excess Health Care Expenditures:
Dhlp=actual-predicted health care, if >0,
else=0

DhlpSq=Dhlp x Dhlp

Low Health Care Expenditures:
Dhln=actual-predicted health care, if <0,
else = 0

DhlnSq=Dhln x Dhln

The main hypothesis, that nonhousing expenditures are influenced by excess expenditures for housing, transportation, and health care, is tested with a stepwise regression run for each expenditure on its predicted expenditure and appropriate residual variables defined above. A similar regression is run for housing as a function of predicted housing and transportation and health care residuals. The results (Table 6) generally contradict the idea that excess housing expenditures are offset by sacrifices in other expenditures.

To illustrate the regression results in Table 6, assume that excess housing expenditures (reflected in the Dhsp and DhspSq variables) equal $3,000 (3.3 percent of households had excess of $3,000 or more.) That level of excess housing expenditures would be associated with $282 in extra spending for food and $312 for clothing and jewelry. This extra spending for food is computed as follows:

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The coefficient for Dhsp in the food regression (0.094) is multiplied by the assumed excess housing expenditure ($3,000). DhspSq did not enter the regression, so the total effect of an excess housing expenditure of $3,000 on food expenditure is $282 (0.094 x $3,000.)

Excess housing expenditures have no impact on transportation expenditures. Excess housing expenditures of $3,000 are associated with health care expenditures being $297 lower than the level predicted if the housing residual equals zero. Figure 1 shows the relationship between health care expenditures and negative and positive housing residuals.

Spending less than the predicted amount on housing (Dhsn and DhsnSq) is associated with lower spending for food, health care, clothing and jewelry, and other consumption. A household with housing expenditures $2,000 less than predicted (3.4 percent had at least this much less) would have food expenditures $230 lower, health care expenditures $251 lower, clothing and jewelry expenditures $188 lower, and other consumption expenditures $598 lower than otherwise.

Excess transportation expenditures (Dtp and DtpSq) are associated with higher clothing and jewelry expenditures. An excess transportation expenditure level of $3,000 (8.6 percent had that level or more) is associated with clothing and jewelry spending $63 higher. Lower transportation expenditures (Dtn and DtnSq) are associated with lower spending for food, clothing, other consumption, and housing, and higher spending on health care.

Excess health care expenditures (Dhlp and DhlpSq) are associated with lower transportation expenditures, and higher spending on other consumption and housing. An excess health care expenditure of $1,000 (3.8 percent had at least this level) is associated with a nine dollar decrease in transportation expenditures, a $12 increase in other consumption, and a $204 increase in housing expenditure. Lower than expected health care expenditures (Dhln and DhlnSq) are associated with lower transportation and higher clothing and jewelry expenditures.

DISCUSSION

The sacrifices reported by recent homebuyers [5] cannot be seen in this analysis. Although this analysis included all homeowners with mortgages, not just recent homebuyers, it is designed to pinpoint the effects of higher than normal housing expenditures. The only consumption category with lower spending associated with high housing expenditure is health care, which is the category with the lowest frequency of sacrifice reported in the recent homebuyer study [5].

In this analysis, there does not seem to be any trade-off between housing and transportation, contrary to our expectations of workers putting up with high commuting costs in order to obtain lower housing costs. Given the broad definition of housing expenditure, this result should be interpreted with caution, as some studies have shown that housing prices and site rents tend to decline with distance from the central business district. [4]

The only results that suggest a sacrifice in response to excess spending in a category are those related to health care. Excess housing expenditures are related to lower health care spending, although lower housing expenditures are also associated with lower health care expenditures. Excess health care expenditures are associated with slightly lower transportation expenditures. These two patterns may reflect demographic patterns rather than any actual sacrifice by households.

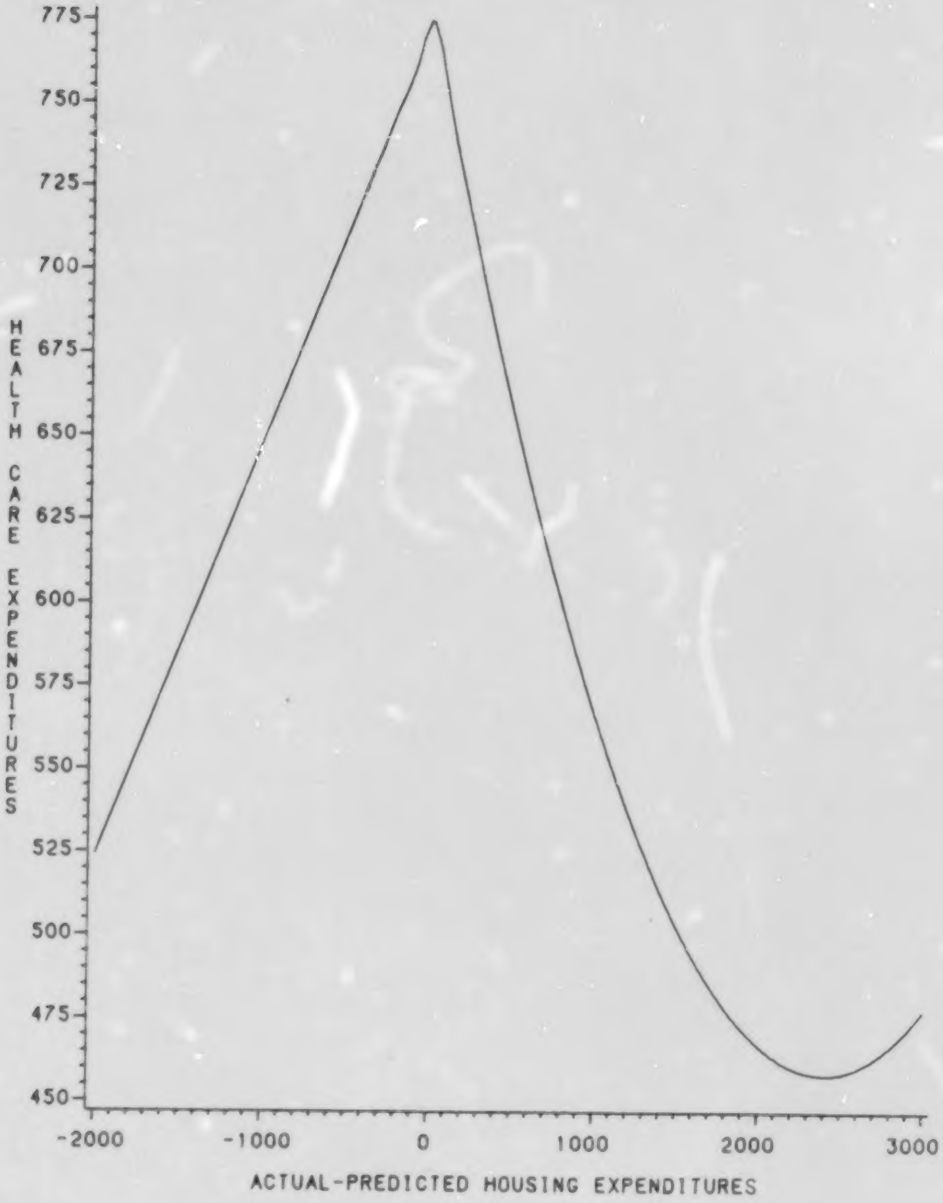
The overall results indicate a pattern of some households spending at high levels relative to income, and other households spending at low levels relative to income. Any trade-offs among spending categories appear to have been swamped by the simple phenomenon that some years some households will spend at high levels relative to

TABLE 6. Regressions of Expenditures on Predicted Expenditures and Residuals of Housing, Transportation, and Health Care Expenditures.

Variable	Food	Transportation	Health Care	Clothing	Other Consumption	Housing
Predicted Exp.	1.031	1.125	0.686	1.068	1.079	0.988
Dhsp	0.094		-0.263	0.104		
DhspSq			5.467E-5			
Dhsn			0.125			
DhsnSq	-5.764E-5			-4.680E-5	-1.496E-4	
Dtp				0.021		
DtpSq						
Dtn	0.126		0.138	0.048		
DtnSq			6.421E-5		-1.009E-4	-5.016E-5
Dhlp						0.183
DhlpSq		-8.816E-6			1.203E-5	2.057E-5
Dhln				0.203		
DhlnSq		-9.024E-4				
CONSTANT	10.703	-215.345	341.586	-20.300	-67.144	56.053
Adj.R^2	0.336	0.108	0.384	0.405	0.489	0.409

(All variables significant at .01 level.)

FIGURE 1. HEALTH EXPENDITURES VS. HOUSING RESIDUAL
ASSUMING PREDICTED HEALTH CARE=$631



income. Obviously, many households deal with low current incomes by dissaving : either borrowing or liquidating assets. The elimination from the analysis of households with zero or negative incomes apparently is not sufficient to reduce the impact of households with abnormally low incomes on the analysis.

Analyzing the 1980-81 BLS data may produce very different results, given the large increases in home prices and mortgage financing costs between 1973 and 1981. Examination of subcategories of housing expenditures may provide more insight into possible sacrifices due to excess housing expenditures. It may be appropriate to use a measure of permanent income rather than current income in predicting consumption expenditures.

This study is exploratory, so extreme caution should be exercised in drawing conclusions. With further analysis of more recent data, implications for financial counseling, housing policy, and lending practices might be obtained.

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EMERGENCY FUND LEVELS OF HOUSEHOLDS

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ABSTRACT

1977 and 1983 surveys of family finances are used to examine households' holdings of emergency funds. Analysis shows that most families had low levels of emergency funds. Data also show that families were less prepared in 1983 than in 1977 to face financial emergencies. Cross-tabulations of data with socio-demographic characteristics of families show how emergency funds varied among households.

INTRODUCTION

Households are vulnerable to financial crises as a result of events within the household and changes that occur in the economy. The importance of an adequate emergency fund to deal with these demands is stressed by financial advisors. And yet, little research has been done to determine actual emergency fund levels of households or the changes in those levels over time. The purpose of this paper is to measure emergency fund levels of households, compare the changes in emergency fund levels from 1977 to 1983, and identify those households most likely to be financially unprepared for emergencies.

REVIEW OF LITERATURE

Most financial advisors recommend that households have the equivalent of at least three months of living expenses available in the form of liquid assets in case of unexpected crises such as unemployment or illness. Household liquid assets comprise cash and assets which can be turned into cash at short notice. The degree of liquidity can vary from demand deposits and savings accounts to time deposits, mutual funds, stocks and bonds. The stock of these assets held at any time constitutes a household's emergency fund.

The concern of financial advisors over emergenc funds is not misplaced. Duncan and Morgan, in a study of 5000 families over the period 1968-78, found "a remarkable amount of change occurring at all levels of the income distribution" (5, p. FE-46). The most important event accounting for changes in income distribution was fundamental disruption in family structure, such as divorce and death. Ability to maintain a strong presence in the workforce (keeping a job, maintaining a high level of work hours) was also significant. Smythe, in an earlier study using government survey data, identified unemployment and medical costs as the main source of risk to family economic wellbeing (13). Without emergency funds to fall back on, events such as these can seriously impair the welfare of households.

Despite the significance of emergency funds to the household, there are few studies available that address explicitly the level of emergency funds. Much of the analysis of household liquid assets has been concerned with flows of assets (savings rates, changes in net asset holdings) rather than stocks (2,4,8,9,5,16). In most cases, studies have set out to explain the average level of savings over a long period of time. While the accumulation of assets is important to stock levels, the factors affecting flows over time may not necessarily be synonymous with those that affect stock levels at some point in time.

Smythe (13) approached the question of levels of emergency funds indirectly through the analysis of safe levels for family credit commitments. How much credit a family can handle depends on the relationship between its income and daily needs. Smythe referred to the problem of maintaining an emergency fund. "Families planning to assume installment debt need to consider more than the relationship between income and expenditures. They need to consider the possibility of sudden changes in their financial situation and make provisions for handling such changes" (13, p. 168).

Families can meet these emergencies if they have enough liquid and investment assets to live for a time without sacrificing normal living standards. When deciding on a level for liquid assets, Smythe recommended taking into account future family size, income, expenditure and net worth, and points out that the weight given to these will depend on stage of life cycle and probability of unemployment. Rather than prescribe safe levels, Smythe presented data on families' emergency funds at four stages in the life cycle, and related these to the average time a family at that stage of the life cycle could expect to be out of work if unemployment occurred. Results showed that, on average, families at each stage of the life cycle

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could have supported their current life style during the average unemployment period.

While Smythe's study remains the most comprehensive analysis available of emergency fund levels, other studies have examined related aspects of household liquid asset holdings and have provided useful insights into considerations which help determine levels of holdings. Lindqvist, in a study of determinants of household savings in 429 Swedish families, included a regression equation with stocks of liquid assets (bank funds) as the dependent variable (11). Results for this particular sample showed that standard socio-economic variables such as income, family size and stage of life cycle, were not significantly related to stock level, but that variables reflecting socio-psychological attributes of households, such as expectations and economic satisfaction, were significant. The opposite was true of flows of savings; suggesting that results of models pertaining to flows of liquid assets may not be directly applicable to stock levels.

While liquid assets are an emergency fund, some studies have stressed that considerations other than emergencies enter into the decision on the amount of liquid assets to hold. Smythe (13) pointed out that liquid assets can be used to take advantage of unexpected opportunities for gain.

Bryant (3) places the liquid assets holding decision in the broader context of the consumer's asset and debt portfolio. Liquid asset holdings are determined jointly with other asset and debt holdings in the portfolio equilibrium decision. Emergencies would then become a subset of events which necessitate an adjustment of the equilibrium portfolio. Empirical components of the study, which are based on the 1977-78 Michigan Survey of Consumer Finances, are concerned with adjustments of the portfolio. Findings show that, on Bryant' broad definition of liquid assets (savings, cash, stocks, bonds, mutual funds, money in investment clubs, certificates of deposit), average family holdings constituted the equivalent of almost a whole year's total family income.

In all of the above, the terms family and household have been used interchangably, following the practice of many studies of counting members of one household "nuclear" unit as family. Morgan's study of redistribution of income by families indicates that emergency funds may flow within and between families (12). Morgan's empirical work showed that 22% of the 5000 families studied had drawn $500 or more from other family's reserves of liquid assets. Further analysis of these flows showed them to be influenced by age patterns of heads of households, income and family size.

Data Sources and Methods

This paper analyses the extent of emergency fund reserves of households in 1977 and 1983, using data from the Michigan Survey Research Center's Survey of Consumer Finances for those years. Analysis of data from before and after the recent economic recession permits us to see if households are at greater risk now than previously.

The Michigan Surveys of Consumer Finances constitute data from personal interviews with large numbers of randomly selected households from throughout the United States. Questions were designed to yield detailed data about families' asset and debt levels, and to provide extensive socio-demographic data about respondents[1].

For the purposes of this study, emergency funds are defined as certain household liquid asset holdings. Three different measures of assets are used. The first, quick emergency fund (EF1), comprises assets which can very quickly be turned into cash. This category consists of checking and savings accounts for the 1977 data. Such a measure has been used by Hefferan (9) and Lindqvist (11). The 1983 EF1 category is expanded to include money market funds and accounts. The second measure, intermediate emergency fund (EF2), and adds to EF1 the value of certificates of deposit and savings certificates. The third measure is comprehensive emergency fund (EF3), and adds to EF2 the value of stocks and bonds which can be converted to supplement the more liquid assets should EF2 prove inadequate to meet needs. Such a measure was proposed by Fitzsimmons and Williams (7), and is used by Bryant (3) and Smythe (13).

It would also be possible to develop fuller measures of liquidity, which would allow for cash value of other portions of households' net worth. Measures of this nature have been proposed; examples of assets incorporated into the measures are durable goods (Hefferan (9)) and real estate (Strober (14), Foster (8)). Because this approach implies a sacrifice of living standards that contradicts the concept of emergency funds being discussed in this paper, no such measure is employed.

In some parts of the analysis, the measures of liquid assets are shown as percentages of total money household income (earned and unearned) before taxes. This allows analysis of household ability to maintain a standard of living based on all sources of income. When the measures of liquid assets (EF1, EF2 and EF3) are shown as percentages of total household income, these percentages are labeled EFP1, EFP2 and EFP3 respectively.

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[1] Summaries of the general findings of the surveys appear in 1,6 and 10.

Finally, a problem in presenting material was that in the 1977 survey, data on income and financial assets were collected in discrete intervals, while 1983 data were in actual dollar amounts. 1977 data were therefore converted into dollars by using the midpoint of the relevant interval. The upper income level for 1977 was represented by median value of income from official data. The upper level for each category of assets was represented by its lower bound (e.g. $50,000 and over would be coded as $50,000). There were very few observations in these highest categories of financial assets.

FINDINGS

Table 1 shows the three measures of emergency funds for 1977 and 1983 in current dollars; Table 2 adjusts the figures to constant (1983) dollars. The mean value of EF1 dropped from $12,088 in 1977 to $5,555 in 1983 (Table 2); the median value declined from $2,507 to $1,000. The mean value of EF2 went from $14,910 to $9,346 per household. The EF3 measure declined from $23,912 to $16,783; the median value dropped from $3,066 to $1,150.

TABLE 1 Emergency Funds of Families in 1977 and 1983, Current Dollars.

Emergency Fund Measure	1977 Mean ($)	1977 Median ($)	1983 Mean ($)	1983 Median ($)
EF1	7,377	1,530	5,555	1,000
EF2	9,099	1,583	9,346	1,000
EF3	14,593	1,871	16,783	1,150

TABLE 2 Emergency Funds Of Families In 1977 And 1983, Constant (1983) Dollars

Emergency Fund Measure	1977 Mean ($)	1977 Median ($)	1983 Mean ($)	1983 Median ($)
EF1	12,088	2,507	5,555	1,000
EF2	14,910	2,594	9,346	1,000
EF3	23,912	3,066	16,783	1,150

Table 3 shows emergency funds as a percentage of annual pre-tax income. The mean EFP1 savings in 1977 was 58 percent, or equal to about seven months of pre-tax income, compared to 43.7 percent in 1983, or about five months pretax income. Median EFP1 holdings dropped from less than two months of income in 1977 (11 1/2%) to less than one month in 1983 (5.5%). Even on the comprehensive EFP3, the median family held an amount equivalent to only 16 percent of annual household income, pretax, as emergency funds (2 months) in 1977 and 7 percent (less than 1 month) in 1983.

TABLE 3 Emergency Funds as a Percentage of Annual Pre-Tax Income

Emergency Fund Measure	1977 Mean (%)	1977 Median (%)	1983 Mean (%)	1983 Median (%)
EFP1	58.0	11.5	43.7	5.5
EFP2	71.1	12.3	60.7	6.1
EFP3	106.4	16.0	73.2	7.0

One way to assess the degree to which families were at risk is by looking at the average duration of unemployment in the two survey years. According to Bureau of Labor Statistics, Employment and Earnings series, the average period for which an unemployed household member was out of the workforce was 15.5 weeks in 1977 and 19.4 weeks in 1983. On the highly liquid EFP1 measure, 74 percent of families would have had insufficient funds to substitute for total household income if they had been unemployed in 1977, while 86 percent would have had insufficient funds in 1983. On the comprehensive EFP3 measure, the relevant numbers were 65 percent in 1977 and 77 percent in 1983.

Information from cumulative frequency distributions is summarized in Table 4. Even on the more comprehensive EFP3, 51 percent of families had less than two months' reserve in 1977, while 64 percent had less than two months' reserve in 1983. For EFP1, the figures were 58 percent in 1977 and 73 percent in 1983.

TABLE 4 Percentage of Families With Emergency Fund Levels Below Specified Equivalents of Annual Household Income, 1977 and 1983.

Emergency Fund Levels	Less Than 1 Month 1977 (%)	Less Than 1 Month 1983 (%)	Less Than 2 Months 1977 (%)	Less Than 2 Months 1983 (%)	Less Than 6 Months 1977 (%)	Less Than 6 Months 1983 (%)	Less Than 1 Year 1977 (%)	Less Than 1 Year 1983 (%)
EFP1	44	59	58	73	79	89	89	96
EFP2	43	55	56	67	77	84	86	91
EFP3	40	53	51	64	71	81	82	88

The difference between mean and median emergency fund holdings of families cited in Table 3 and the fact that the distribution of holdings is skewed to the left can be construed as confirmation of previous findings, that income has a strong, direct relationship to emergency fund holdings. To pursue this further, cross-tabulations of emergency funds and income were calculated. Tables 5 and 6 summarize the results of this calculation for 1977; tables 7 and 8 for 1983. Data in these tables show the distribution of households who held certain levels of emergency funds by total annual household pre-tax income. The last row in each table indicates the percentage of families in the whole sample holding the identified level of emergency funds.

TABLE 5 Percentage of Families Holding Specified Amounts of EF1 By Annual Household Income in 1977 (1983 Dollars).

Annual Income ($)	Less Than $200 (%)	$200 to $999 (%)	$1,000 to $1,799 (%)	$1,800 to $9,999 (%)	$10,000 and over (%)
0 thru 9,000	53.7	19.3	5.4	15.4	6.3
9,001 - 15,500	33.8	25.9	9.3	20.0	11.0
15,501 - 26,600	19.5	24.6	13.8	26.2	15.9
26,601 - 45,000	7.3	15.4	12.1	42.6	22.5
More than 45,000	0.9	4.2	3.3	36.9	54.7
Percentage of All Families holding this amount of unds.	23.7	19.2	9.8	28.2	19.1

Chi-square = 611.5 d.f.=16
r=.49

TABLE 6 Percentage of Families Holding Specified Amounts of EF3 By Annual Household Income, 1977 (1983 Dollars).

Annual Income ($)	Less Than $200 (%)	$200 to $999 (%)	$1,000 to $1,799 (%)	$1,800 to $9,999 (%)	$10,000 and over (%)
0 thru 9,000	52.4	19.0	5.9	14.1	8.5
9,001 - 15,500	31.3	24.5	9.4	19.1	15.8
15,501 - 26,600	18.1	22.6	13.2	25.1	21.0
26,601 - 45,000	4.9	12.8	7.9	37.5	36.9
More than 45,000	0.6	2.2	2.2	23.3	71.7
Percentage of All Families holding this amount of funds.	22.5	17.7	8.6	24.7	26.5

Chi-square = 611.2 d.f.=16
r=.52

TABLE 7 Percentage of Families Holding Specified Amounts of EF1 by Annual Household Income, 1983.

Annual Income ($)	Less Than $200 (%)	$200 to $999 (%)	$1,000 to $1,799 (%)	$1,800 to $9,999 (%)	$10,000 and over (%)
0 thru 9,000	56.3	23.3	5.9	11.9	2.6
9,001 - 15,500	35.1	26.9	9.8	20.0	8.2
15,501 - 26,600	18.7	28.6	13.3	29.6	9.9
26,601 - 45,000	7.3	19.9	14.9	42.3	15.6
More than 45,000	1.8	6.0	8.7	36.8	46.7
Percentage of All Families holding this amount of funds.	25.8	22.5	10.8	27.4	13.5

Chi-square = 983.5 d.f.=16
r=.52

TABLE 8 Percentage of Families Holding Specified Amounts of EF3 by Annual Household Income, 1983.

Annual Income ($)	Less Than $200 (%)	$200 to $999 (%)	$1,000 to $1,799 (%)	$1,800 to $9,999 (%)	$10,000 and over (%)
0 thru 9,000	56.6	21.2	6.0	10.8	5.3
9,001 - 15,500	34.6	24.0	7.7	17.9	15.8
15,501 - 26,600	17.8	25.8	10.6	27.9	17.8
26,601 - 45,000	6.2	15.7	12.5	39.2	26.5
More than 45,000	1.3	3.0	4.7	22.6	68.4
Percentage of All Families holding this amount of funds.	25.9	19.7	8.7	23.7	22.1

Chi-square = 987.8 d.f.=16
r=.54

The strong relationship between income and emergency fund measures was confirmed by significant values of chi-square and pearson correlation coefficients. Looking across the columns of the tables, it is evident that at the lower end of the income distribution, there is a concentration of people with low holdings of emergency funds, while at the upper end of the distribution, households have higher holdings.

Tables 9 and 10 summarize findings of a cross-tabulation of emergency fund levels by stages of the life cycle. The definition of life-cycle stages adopted here is that used by Smythe: Young Family (head under 35 years), Growing Family (head 35-54 years), Contracting Family (head 55-64 years) and Retired Family (head 65 years and over). Data are presented for the quick (EFP1) and comprehensive (EFP3) measures of emergency funds. In each case, families in the young family stage of the life cycle showed greatest concentration of emergency funds in the "less than two months' reserve" category. These families were thus most at financial risk. The concentration of families moves from the lower levels of emergency funds to higher levels as families move through the life cycle. Families in the last stage of the life cycle showed lowest concentration in the high risk category. The significant relationship between life cycle and emergency fund levels is shown by high values of chi-square. The Pearson correlation coefficients were in the 0.33 to 0.40 range.

TABLE 9 Percentage of Families With Specified Levels of EFP1 By Stage of Life Cycle, 1977 and 1983.

Life Cycle Stage	Less Than 2 months (%)		2 to 4 months (%)		4 to 6 months (%)		6 months to 1 year (%)		Over 1 year (%)	
	1977	1983	1977	1983	1977	1983	1977	1983	1977	1983
Young	75.9	84.2	13.5	9.4	3.6	2.6	4.8	2.9	2.2	1.0
Growing	53.6	75.8	17.0	11.8	10.7	5.0	10.4	4.9	8.4	2.5
Contracting	43.1	60.4	11.0	18.0	11.7	7.5	16.9	8.3	17.2	5.8
Retired	32.4	49.1	10.8	11.2	6.3	8.5	15.3	15.0	35.2	16.1

1977 Chi-sq.= 374.6 d.f.=12 r=.40
1983 Chi-sq.= 357.7 d.f.=12 r=.33

TABLE 10 Percentage of Families With Specified Levels of EFP3 by Stage of Life Cycle, 1977 and 1983.

Life Cycle Stage	Less Than 2 months (%)		2 to 4 months (%)		4 to 6 months (%)		6 months to 1 year (%)		Over 1 year (%)	
	1977	1983	1977	1983	1977	1983	1977	1983	1977	1983
Young	70.1	78.1	12.3	10.4	5.4	3.9	7.2	4.9	5.0	2.7
Growing	44.8	65.2	16.1	12.1	9.8	7.9	12.3	7.7	17.0	7.2
Contracting	35.0	47.3	9.8	12.7	6.8	8.1	18.4	12.3	30.1	19.6
Retired	31.7	41.4	8.6	6.7	5.3	3.3	10.3	11.1	44.3	37.5

1977 Chi-sq.=310.3 d.f.=12 r=.37
1983 Chi-sq.=453.2 d.f.=12 r=.37

SUMMARY AND CONCLUSIONS

Analysis of the 1977 and 1983 Surveys of Consumer Finances revealed that many families have low emergency fund levels. Indeed, the majority of families had insufficient funds to cover normal total household income for the average time a household could expect to be out of work, should that event occur.

Data also showed families, on the average, to be less prepared for financial emergencies in 1983 than in 1977. In constant 1983 dollars, the mean of quick emergency funds (EF1) was $12,088 in 1977, and $5,555 in 1983. An intermediate emergency fund reserve (EF2), which added the value of C.D.s to the quick fund, had mean values of $14,910 in 1977 and $9,346 in 1983. The comprehensive emergency fund measure (EF3) had means of $23,912 in 1977 and $16,783 in 1983. Median levels were much lower.

The reasons for the decline in emergency fund levels between 1977 and 1983 may be varied. Inflation and unemployment during the recession undoubtedly were responsible for the depletion of some families' financial reserves. These may also have been a relocation of portions of reserve funds to other assets not measured in this analysis, namely durable goods, real estate, and Individual Retirement Accounts.

Whatever the reason for the decline in emergency fund reserves, the data show most families to be even less prepared for financial emergencies now (1983) than earlier (1977). A prolonged improvement in the economy would give families an opportunity to rebuild financial reserves. But opportunity alone is not enough. Young families need to be educated about the importance of an adequate emergency fund. Families of all ages who find their financial reserves depleted and not rebuilding very rapidly can benefit from assistance with money management. Unexpected financial emergencies, whether generated from inside or outside the family, will always be a part of family life. And so will the need for emergency reserves.

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PARTICIPATION IN MORTGAGE PROGRAMS

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PARTICIPATION IN MORTGAGE PROGRAMS

The federal role in capital markets is an area of major national concern. Questions raised include: are federal credit activities a reasonable approach or are they an intrusion into well-functioning credit markets? Are they an appropriate response to legitimate needs or politically favored aid to selected persons? Who is served by federal credit programs? This paper is concerned only with residential, single-family mortgage programs. It addresses the issue of who participates in federal home mortgage loan programs and how these purchasers differ within programs as well as compared to conventional mortgage loan holders.

Federal Credit Programs

Since the 1930's the role of the federal government in the allocation of mortgage credit has increased considerably. Federal credit programs are usually justified by the existence of imperfections in the private capital market. The imperfections include incorrect perception of risk by lender, imperfect knowledge by borrowers, and regulations. The social benefits of home ownership is another rationale.

Silber and Black identify two goals of federal credit programs: "(1) the reallocation of credit and resources toward a particular activity; (2) the redistribution of income towards particular borrower classes in the form of lower interest payments on certain types of loans."[4]

The three major federal, single-family loan programs are: the Federal Housing Administration (FHA), the Veteran's Administration (VA), and the Farmers Home Administration (FmHA). These loan programs contain some institutional constraints which will somewhat determine the characteristics of the borrowers. The following sections briefly highlight each of the programs.

Federal Housing Administration. FHA/HUD insured mortgage loans are made by banks, savings-and-loan associations and other lending institutions. The mortgage terms paid by borrowers will vary by lender. However, FHA establishes ceilings on the value of the house to be financed and interest rates. Minimum downpayments are set by a formula --three percent of the first $25,000 and five percent of the value in excess of $25,000. At the time of data collection, the dollar limit on FHA loans was $67,500 except in high cost areas. The limit could also be increased up to 20 percent if the cost was for the installation of a solar energy system. For the period under study, September 1978 to December 1979, FHA interest rates ranged from 9.50 to 11.50 percent. Borrowers pay a 0.5 percent mortgage insurance premium on the outstanding principal balance. This fee is the main source of FHA funds.

Veterans Administration. The objective of the VA home loan program is to facilitate the extension of credit on favorable terms by private lenders to eligible veterans. VA loans may be insured, guaranteed or direct. The loan guaranty program provides a federal guaranty that the mortgage will be paid. The insurance program operates through an insurance fund set aside by VA to cover defaults. It has not been used much in recent years. Direct loans are primarily used in areas where mortgage credit is not otherwise available. There is no statutory maximum for VA guaranteed loans. However, the lender will only be guaranteed $27,500 or 60 percent of the mortgage, whichever is less. There is no charge to the borrower for a VA guarantee or insurance. As with FHA loans, the VA interest rate ranged from 9.50 to 11.50 in the period under study.

Farmers Home Administration. Farmers Home Administration is the primary housing credit agency for nonmetro areas. FmHA serves areas up to 10,000 in population and areas between 10,000 and 20,000 population located outside SMSA's which lack credit. FmHA both guarantees and insures loans. FmHA has an income eligibility limit. In 1979, adjusted family income could not exceed $11,200 in all States and territories except Hawaii, Guam, and Alaska for interest subsidized loans and $15,600 for moderate income loans. Borrowers must also have not been able to receive credit elsewhere.

Data

The 1979 Annual Housing Survey is the source of data used in this study. Data were collected between September 1979 and December 1979 by the Bureau of the Census for the Department of Housing and Urban Development. The sample consisted of approximately 73,300 housing units including units sampled in 1978 and a selection from new building permits and updated listings in areas not having building permit data. Interviews were not conducted in 4,300 of the cases either because of respondent refusal or vacancies.

From this large sample, the present study used data on recent movers only. A recent mover is a household that moved in to their present unit within the 12 months prior to the date of the interview. The restriction to recent movers allows for the examination of current choices based on the current socioeconomic status of the household. The sample was further restricted to single family detached owner occupants. This further increases the homogeneity of the sample. Mobile home financing contracts differ in terms and little is known about condominium/ cooperative financing.

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The sample consists of 2060 recent mover owners of single-family detached units with a mortgage. Of these, 67.7 percent have a conventional mortgage, 15.4 percent an FHA mortgage, 13.7 percent a VA mortgage, and 3.2 percent an FmHA mortgage.

Characteristics of the respondents and the housing they occupy will be highlighted here. Particular attention will be given to characteristics in which differences among the four groups of borrowers were observed (Tables 1 and 2).

The average household head was in his thirties, was white and male. FmHA borrowers were somewhat younger and more likely to be females than other borrowers. The average household size was about three persons. Average household income ranged from $14,445 for FmHA borrowers to $25,697 for conventional borrowers. Most borrowers had more than one source of income. The average borrower, regardless of mortgage type, spent slightly more than one-quarter of their income for housing. This home was the first one owned for 62 percent of the FmHA borrowers compared to 35 percent for conventional borrowers.

Average house size ranged from 5.7 rooms for FmHA borrowers to 6.4 rooms for conventional borrowers. Except for FmHA homes which had an average age of 11 years, the average house age was approximately 15 years. Mean house value ranged from $43,617 for FmHA homes to $67,595 for conventionally financed homes. Monthly housing costs, including mortgage, real estate taxes, property insurance, utilities and garbage and trash collection ranged from $296 for FmHA borrowers to $522 for conventional borrowers.

For 80 percent or more of all borrowers, the mortgage on the house was originated and not assumed. Whether the borrower made a downpayment varied considerably by mortgage type--half of FmHA borrowers and one-third of VA borrowers made no downpayment, whereas, only 2.3 percent of conventional and 5.4 percent of FHA borrowers made no downpayment. Sale of real property including a previous home, and savings were the primary source of the downpayment.

One-third of conventionally financed homes were outside SMSAs, whereas one-quarter of VA and FHA were so situated. As would be expected, 80 percent of FmHA mortgaged homes were outside SMSAs. Using size of place as a measure, the area outside SMSAs could be divided into places less than 5,000 population and between 5,000 and 49,999. Fewer housing units fell in the latter category for all mortgage types than in the less than 5,000 group.

The distribution of housing units by region indicated more housing units were financed in the South regardless of mortgage type although for conventionally financed housing the edge over the Northcentral region was slight. For FHA and VA mortgages, the Western region followed the South in terms of percent of homes financed. Outside the Southern region, FmHA loans were somewhat equally distributed.

Technique

In the purchase of a house, households are faced with a set of possible choices which are mutually exclusive alternatives. For example, the choice of a FHA mortgage precludes any other alternative. The choice that the household will make depends on the characteristics of the alternative and attributes of the household and house.

Multinomial logit analysis is a technique for handling such a data problem. The multinomial logit model provides a set of coefficients which indicate the rate of change in the probability that a mortgage alternative is chosen. In addition, it is possible to calculate predicted probabilities for a range of household or housing types. For example, one can predict the probability of choosing a FHA mortgage for the "average" household in the sample, that is, one having as its vector of characteristics the mean value for each characteristic.

The multinomial logit equation specified later in the paper determines the probability that a given household with a given set of characteristics, both personal and housing- related, received a specific mortgage type. The households are partitioned among the four mutually exclusive mortgage types which are not assumed to be ordered. The N-1 equations, plus the requirement that the probabilities sum to one, determine the selection probabilities uniquely.

"Each equation presumes that the logarithm of the odds of one choice relative to a second choice is a linear function of the attribute x. These odds are dependent on the odds associated with the remaining two equations only in the sense that the system must be constrained so that the sum of the individual probabilities equals 1." [3:258].

There are several assumptions in the model to be noted:

(1) the disturbance terms are Weibull distributed,

TABLE 1

DISTRIBUTION OF SELECTED CHARACTERISTICS BY MORTGAGE TYPE

	MORTGAGE TYPE									
VARIABLE	Conventional		FHA		VA		FmHA		Total Sample	
	n	%	n	%	n	%	n	%	N	%
Inside SMSA	892	63.9	241	76.0	212	75.2	13	19.7	1358	65.9
Outside SMSA	503	36.1	76	24.0	70	24.8	53	80.3	702	34.1
White	1318	94.5	274	86.4	250	88.7	58	87.9	1900	92.2
Non-white	77	5.5	43	13.6	32	11.3	8	12.1	160	7.8
Male Head	1320	94.6	289	91.2	271	96.1	49	74.2	1929	93.6
Female Head	75	5.4	28	8.8	11	3.9	17	25.8	131	6.4
First Home Owned	484	34.7	179	56.5	126	44.7	41	62.1	830	40.3
Mortgage Originated[a]	1143	81.9	269	84.9	230	81.6	58	87.9	1700	82.5
Source of Downpayment[b]										
Real Property	641	45.9	89	28.1	68	24.1	7	10.6	805	39.1
Savings	425	30.5	153	48.3	88	31.2	12	18.2	678	32.9
Other	297	21.3	58	18.3	38	13.5	14	21.2	407	19.8
None	32	2.3	17	5.4	88	31.2	33	50.0	170	8.3
Size of Place										
1-4,999	384	27.5	56	17.7	49	17.4	45	68.2	534	25.9
5,000-49,999	119	8.5	20	6.3	21	7.4	8	12.1	168	8.2
50,000+	892	63.9	241	76.0	212	75.2	13	19.7	1358	65.9
Outside Income[c]	1011	72.5	192	60.6	194	68.8	35	53.0	1432	69.5
Region										
Northeast	230	16.5	26	8.2	21	7.4	8	12.1	285	13.8
Northcentral	423	30.3	58	18.3	52	18.4	11	16.7	544	26.4
South	444	31.8	124	39.1	125	44.3	36	54.5	729	35.4
West	298	21.4	109	34.4	84	29.8	11	16.7	502	24.4

[a] Excludes assumptions

[b] Real property includes sale of previous home or other real estate. Other includes borrowing, gift and land as sources.

[c] In addition to their main source of income, borrower had other income; sources include dividends, interest, and alimony.

TABLE 2

MEANS AND STANDARD DEVIATIONS OF SELECTED CHARACTERISTICS BY MORTGAGE TYPE

	MORTGAGE TYPE									
VARIABLE	Conventional n=1395		FHA n=317		VA n=282		FmHA n=66		Total Sample N=2060	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Age of Household Head	35.7	10.7	32.7	9.6	36.7	9.1	31.8	11.0	35.2	10.4
Size of Household	3.2	1.4	3.3	1.4	3.3	1.4	3.2	1.3	3.2	1.4
Income	$25,697	$11,588	$20,801	$8,848	$24,498	$10,133	$14,445	$8,178	$24,419	$11,197
Monthly Housing Costs[a]	$522	$259	$453	$150	$515	$186	$296	$165	$503	$237
Housing Costs as % of Income	26.9	12.4	28.8	11.0	27.9	11.2	26.0	7.9	27.3	11.9
Number of Rooms	6.4	1.6	5.8	1.2	6.3	1.4	5.7	1.5	6.3	1.6
Property Value	$67,595	$42,823	$51,475	$21,710	$55,643	$24,445	$43,617	$36,426	$62,710	$38,619
Age of House	15.5	15.0	15.2	13.9	15.0	13.4	11.2	14.4	15.3	14.6

[a] Includes mortgage, real estate taxes, property insurance, utilities, and garbage and trash collection.

(2) bivariate interaction effects are constant,

(3) interaction effects of order higher than two are absent,

(4) main effects are linear functions of the explantory variables.

The model is estimated by maximum likelihood methods using the computer program, known as CRAWTRAN, developed by Robert B. Avery [1]. The maximum-likelihood procedure guarantees consistent parameter estimates and correct large-sample statistics [3:260].

Estimates of the parameters for the logit equation are presented in Table 6 in the Appendix. Asymptotic t- statistics are reported in parentheses. The coefficients are the logarithms of the odds of an event occurring over the range negative infinity to positive infinity. They can be interpreted as follows: a one unit increase in a given independent variable, holding all other variables in the equation constant, results in a percentage change in the odds of an event occurring of the amount and direction indicated by the logit coefficient.

Analysis

Because of the high cost of logit analysis, regressions were performed to examine alternative variable forms and variance in effects. In addition to the thirteen variables selected for the logit analysis, variables considered in the regression equations were: number of sources of income, household size, monthly housing costs, housing costs as a percent of income, was the mortgage originated, source of downpayment, and size of community in which house was located. The majority of these variables had no significant effect. If a variable was significant in any equation, there was no pattern of significance except that having more than one source of income was significant for all equations relating to FHA mortgages.

For this paper, the variables selected, the measure used, and rationale are detailed in Table 3. The group of conventional mortgage holders were used as the normalizing group.

A discussion of the significant variables and direction of the effect on the probability of receiving mortgage type are examined for each federal mortgage program as compared to conventional mortgages (Table 4).

FmHA

Compared to the base group, two household characteristics significantly affected the probability of being an FmHA mortgage holder. As income decreased, the probability of borrowing from FmHA increased. This is as would be expected given the income constraints on FmHA borrowers. A more interesting result is that being a female headed household increased one's probability of receiving an FmHA loan relative to conventional borrowers. The descriptive data had indicated that this might be expected.

Purchasing a newer home increased the probability of receiving an FmHA mortgage. There has been some concern that FmHA leans toward financing new construction so that this result was expected. The lack of a downpayment increased the probability of being an FmHA borrower. Since the program requires no downpayment while most conventional lenders require at least five percent, this result was expected.

Given FmHA regulations, it was expected that the purchase of a house outside an SMSA would increase the probabilty of receiving an FmHA loan. This was the case.

VA

Compared to the base group, the probability of having a VA mortgage increased significantly with age of the head and if the head was non-white. The former is to be expected since eligible veterans are more likely to be older.

A higher value house was less likely to have a VA loan, however, a larger house was more likely. Since there are program limits on the amount of mortgage VA will guarantee the former might be expected. The latter result is hard to explain. Lack of a downpayment increased the probability of being a VA mortgage holder. This is to be expected since VA requires no downpayment.

Location of a house inside an SMSA increased the probability of being in the VA program. Why this should be so is not clear.

FHA

Relative to conventional borrowers, the probability of having an FHA mortgage decreased as age and income increased and if the borrower had previously owned a home.

Being non-white increased the probability of being an FHA borrower. Boehm and McKenzie reported that nonwhites have a lower probability of owning [2:9]. As value and age of the home increased, the probability of there being an FHA mortgage on it decreased. Given that FHA limits the amount of mortgage that it will finance, the results were expected.

The probability of having an FHA mortgage increased if the house was located inside an

SMSA. Homes located in the Northeast and North central regions were less likely to have an FHA mortgage, whereas homes located in the West were more likely to have an FHA mortgage.

Prediction

To judge how well the model was predicting the ex-post probabilities of purchasing a certain type of mortgage, mean probability equations were constructed and solved. These equations were constructed using the estimated coefficients for each group along with the mean values of the continuous independent variables and the modal values of the dichotomous independent variables. The equations predict the probabilities, and thus determine which type of mortgage the "average" buyer for each group will purchase. The results are presented in Table 5.

The model correctly predicted that the average FmHA borrower would purchase an FmHA mortgage (prob=.385) and that the average conventional borrower would purchase a conventional mortgage (prob=.734). However, the model did not correctly predict for the VA and FHA groups. This could in part be caused by the similarities between these two groups and the conventional group. Preliminary regression results suggested that this might occur.

Summary and Implications

This study examined the characteristics of households who financed the purchase of a single family house in 1979. It also looked at location and characteristics of the housing. Using multinomial logit analysis, the probability of participating in one of three federal credit programs was examined. Mean probability equations were calculated to test whether the model would accurately predict mortgage choice.

Of the 2060 respondents in the sample, 67.7 percent had a conventional mortgage, 15.4 percent had an FHA mortgage, 13.7 percent had a VA mortgage, and 3.2 percent had an FmHA mortgage. The average household head was white, male and in his thirties. Household size averaged about three persons. Most borrowers spent slightly more than one-quarter of their income on housing. For 80 percent of the borrowers, the mortgage on the house was originated, not assumed.

Differences among the groups were found for income, house value, monthly housing costs, downpayment, and location.

FmHA borrowers were fairly distinct from conventional borrowers. Since the mean probability equations indicated the model was only accurate for predicting FmHA and conventional borrowers, the results for FHA and VA will not be summarized here.

The probability of being an FmHA mortgage holder increased as income decreased, if the household head was female, if the borrower did not make a downpayment, if the house was newer, and if it was located outside an SMSA.

The results suggest that FmHA serves a distinct population group and that program criteria are meeting the established targets. FHA and VA borrowers are more like conventional borrowers and although selected factors increased the probability of participating in one of these programs, the present model cannot predict so with much accuracy. This is either an indication of inaccurate model specification or that FHA and VA borrowers are fairly indistinguishable from conventional borrowers.

The effect of changes in program criteria can be related to the model. For example, requiring FmHA borrowers to make a downpayment could eliminate many households from participating in the program. Likewise putting more stringent requirements on the FHA program might target it to a different group from that currently served. Further model refinements are needed as well as testing over time to see if the results will hold.

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TABLE 3

MEASUREMENT OF VARIABLES

Variable	Measurement	Rationale
DEPENDENT		
Mortgage Type	VA, FmHA, FHA, and Conventional	
INDEPENDENT		
Household Characteristics		
Age of Head	Years	Housing demand may vary with stage of life cycle, proxy for wealth, expected mobility
Income	Household income including wages & salaries, self employment income, Social Security, railroad retirement, public assistance, and all other money income	FmHA restricts income level of borrowers
White	0 = head white 1 = head non-white	Different preferences, discrimination
Sex of Head	0 = male 1 = female	Different preferences, discrimination
First Home Owned	0 = not first home ever owned 1 = first home ever owned	Expected mobility, proxy for wealth
Housing & Mortgage Characteristics		
Rooms	Number of rooms in the home	Measure of quantity; reflection of family size needs
Value	Respondent's estimate of how much the property would sell for it it were for sale	Loan limits on FHA; FmHA limited to moderate income housing
Age of Home	Years	Measure of quality
Downpayment	0 = made a downpayment 1 = no downpayment made	Requirements vary; measure of wealth
Location		
Met	0 = inside an SMSA 1 = outside an SMSA	FmHA programs restricted in availability
Region		
NE	0 = no 1 = Northeast census region	Reflect program targeting, distribution of funds, house price differences
NC	0 = no 1 = North central census region	
W	0 = no 1 = Western census region	
S	0 = no 1 = Western census region	

TABLE 4

MULTINOMIAL LOGIT RELATIONSHIPS[a]

SIGN AND STATISTICAL SIGNIFICANCE

DEPENDENT VARIABLE	n	Constant	Rooms	Value	Age Head	Income	Age Home	Met	White	Sex Head	First Home	Down-Pay	NE	NC	W
VA	282	− **	+ **	− **	+ **	+	−	− **	+ *	−	+	+ **	− **	− **	+ **
FmHA	66	− *	+	−	−	− **	− **	+ **	+	+ **	+	+ **	−	−	+
FHA	317	+ *	−	− **	− *	− **	− **	− **	+ **	+	+ **	+	− **	− **	+ **
Conventional[b]	1395														

[a] Statistical significance of estimated coefficients is indicated * $p < .05$, ** $p < .01$ for a two-tail t-test

[b] The coefficients of the conventional mortgage group were normalized by setting them to zero.

TABLE 5

PREDICTED MORTGAGE GROUP
(rows sum to 1)

		VA	FmHA	FHA	CONV
Actual Mortgage Group	VA	.152	.004	.164	.680
	FmHA	.352	.385	.085	.178
	FHA	.137	.007	.272	.584
	CONV	.127	.003	.136	.734

TABLE 6

MULTINOMIAL LOGIT ESTIMATES AND ASYMPTOTIC t-RATIOS[a]

COEFFICIENT OF

DPNDNT: VARABL:	Constant	Rooms	Value (000S)	Age Head	Income (000S)	Age Home	Met	White	Sex Head	First Home	Down-Pay	NE	NC	W
VA n=282	-2.355 (-4.750)	0.167 (2.937)	-0.021 (-5.810)	0.025 (3.399)	0.009 (1.192)	-0.011 (-1.874)	-1.009 (-5.692)	0.607 (2.397)	-0.634 (-1.709)	0.181 (1.023)	3.036 (12.463)	-0.866 (-3.208)	-0.727 (-3.533)	0.566 (2.900)
FMHA n=66	-2.210 (-2.173)	0.150 (1.298)	-0.006 (-0.712)	-0.016 (-1.033)	-0.096 (-4.024)	-0.042 (-3.468)	1.418 (3.942)	0.602 (1.191)	1.098 (2.627)	0.374 (1.095)	2.968 (8.472)	-0.431 (-0.888)	-0.551 (-1.313)	0.121 (0.289)
FHA n=317	1.168 (2.527)	-0.016 (-0.297)	-0.020 (-5.392)	-0.015 (-2.035)	-0.022 (-2.654)	-0.017 (-3.332)	-0.938 (-5.944)	0.775 (3.464)	0.044 (0.168)	0.425 (2.750)	0.575 (1.789)	-0.843 (-3.458)	-0.706 (-3.753)	0.679 (3.771)

[a] Log Likelihood -1560.97

FINANCIAL MANAGEMENT--DISCUSSION

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The three papers in the financial management section are related to tradeoffs and decisions families must make in managing their resources. The papers are relevant for several reasons. First, the results of each paper provide scope for practical application; information useful to consumer advocates and educators is included in each. Second, basic assumptions or guidelines are tested in the papers, e.g., the level of emergency funds is addressed in the Jackson and Widdows paper. Finally, in the Meeks and Hession paper, the effectiveness of policy is questioned, e.g., are policy objectives met? Is the intended audience being served?

The papers also raised questions for discussion. Two themes or sets of questions emerged: questions about the scale of analysis, both temporal and spatial, used in each and questions about definitions and techniques used in analysis.

Scale

With respect to temporal scale, or time, a longer time span would seem more appropriate in the analyses by both Hanna and Jackson and Widdows. Since household expenditures and savings in a given year may be a function of expenditures in previous years, the inclusion of data from more than one year seems warranted. Of course, the feasibility of this suggestion depends on data availability.

In addition, spatial scale may be important in analysis, especially in the paper by Meeks and Hession. In looking at policy effects and the distribution of program use, the examination of effects at more than one scale may provide a clearer picture. For example, how are differences in mortgage use distributed spatially? If mortgage types are examined at the urban scale, do the patterns that emerge differ from those at the national scale? More specific is the question of association of certain types of mortgages with particular locations vis a vis the city center/suburb continum.

Some work has been done at the urban scale comparing FHA borrowers with conventional borrowers (Morrow-Jones, 1980). In the Columbus, Ohio, metropolitan area in 1976-1977, FHA-financed homes were more likely to be located near the city center than conventionally-financed homes. Properties financed through the FHA program were also found to be lower cost and located in areas with higher black and low-income populations.

With respect to borrower characteristics, suburban FHA borrowers tended to be white, two-adult households with higher incomes than average FHA borrowers. In contrast, nonwhite FHA borrowers were more likely to be located significantly closer to the central business district than white borrowers (holding income constant) and to be lower-income female-headed households.

This brief summary is provided to illustrate differences that emerge with change of scale and to raise the question of the use of several scales of analysis for a complete picture, e.g., in the national sample, FHA borrowers tended to be nonwhite; at the urban scale, non-white FHA borrowers were confined to certain sections of the city.

Definitions and Statistical Technique

The second set of questions relates to definitions and specificity and to suggestion of an alternative statistical analysis. First, in the Jackson and Widdows paper, a nice discussion of factors that influence emergency fund levels is provided. In further work on this topic, however, a more precise focus on specific groups may be in order. Such a focus could lead to closer approximations of emergency fund needs of particular population groups. For example, how do needs differ for particular population groups? What is the likelihood of unemployment and the span of unemployment for different population sub-groups? Likewise, what is the probability for extended disability for particular households? Or, how do needs differ with changes in household composition? Which groups are most vulnerable and therefore most likely to need emergency funds?

A question of definition was raised in the paper by Hanna. A more precise definition of excessive spending for housing may improve the results. For example, Stafford, Hathaway and Harsh (1978) suggested a deviation of twenty-five percent above the mean as a criterion for determination of possible adjustments in the household budget.

A second question in the Hanna paper relates to analysis, i.e., is another type of analysis warranted? One possibility is seemingly unrelated regressions, a technique used when a series of dependent variables sum to one (Godwin, 1985). In this case, the expenditure categories sum to one--total expenditures. Seemingly unrelated regression (SUR) is a two-stage procedure. OLS is first used to calculate the covariance of the error terms across equations. In the second stage, generalized least squares is used to estimate all the parameters in the system as if they were in one large equation. In this way, more efficient estimates are produced because the correlation between the error terms is accounted for and all information in the system of equations is used.

In summary, the three papers presented in the Financial Management Section represent useful contributions to work in family resource management. Further, several possibilities for further work are suggested in each of the papers.

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FINANCIAL MANAGEMENT INFORMATION NEEDS: HELP FOR FINANCIAL PROBLEMS

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ABSTRACT

A statewide survey in Utah identified family members and financial institutions as sources of advice on money management problems. Many respondents were not sure where to seek help. Consumer educators are in a position to offer information and counseling services. Financial institutions could provide opportunities for student internships and faculty sabbaticals.

Financial services deregulation, seesawing inflation, high unemployment, and a changing job market as our society experiences the transition from an industrial based to an information oriented society all spell confusion and uncertainty for consumers. From the deregulation of the financial services industry emerges a financial marketplace far more complex than five or ten years ago. Deregulation offers the consumer more choices and along with those, more confusion. All of these factors combined have helped to spawn a proliferation of consumer financial services. The neighborhood bank is now part of a multi-state conglomerate which offers an array of services. While a few short years ago one went to the insurance agent, banker, and stockbroker for clearly delineated services, it seems that each is advertising as an all-purpose, one-stop financial services center. We can no longer go to Sears for socks and Krogers for groceries without being faced with sales pitches for securities, insurance and annuities.

The need for accessible, affordable and appropriate consumer information and education services to arm consumers with the analytical tools to face the onslaught of all-purpose financial sales promotions is obvious to consumer educators. What do we have to offer this confused consumer burdened with information overload or intimidated by the legions of salespersons all claiming to be uniquely suited to serve all one's financial needs?

The proliferation of newspaper columns, magazine features, the growth of Money magazine, and the emergence of Sylvia Porter's Personal Finance Magazine, reflect an expanding market for information relating to personal financial management. Community education classes on personal financial management and investing may be as popular as aerobic dancing and introduction to computing.

How do consumers learn to manage money and other related consumers skills? Where do consumers seek financial information and advice? What factors do they deem important in selecting sources of information and advice? Where would they seek help when experiencing financial problems? Perhaps the answers to these questions can help consumer educators better serve the adult population we are not reaching in the formal school system.

Will consumers be able to satisfy their information and education needs via programs offered by unbiased educational sources or will they turn to salespeople offering "free" advice and making their living from commissions? When H & R Block, Sears, Prudential-Bache, and Shearson-American Express are offering free seminars with polished finesse, can consumer educators compete in the marketplace?

A statewide survey conducted in 1982 by the Utah Cooperative Extension Service among community leaders in each county confirmed that personal financial management was among the top ten identified needs throughout the state. This paper describes the results of a 1984 statewide survey of Utah residents. The purpose was to determine attitudes toward financial counseling and knowledge of sources of money management information and advising.

OBJECTIVES

In order to better understand the financial information and advising needs of Utah residents, a statewide survey was conducted. The specific objectives were:

1. to determine the major sources of financial management information and advice used by Utahns,
2. to examine the relationships between sources of information/advice and selected demographic variables,
3. to assess attitudes toward requiring consumer education in public schools,
4. to determine what factors would be most important to persons in selecting financial advising services, and
5. to determine how Utahns cope with financial problems.

METHODOLOGY

Data were collected in the Spring of 1984 using a mailed survey designed according to the Dillman Total Design Method [2]. After pretesting, the instrument was mailed to a sample of 1000 Utah residents whose names were drawn from telephone directories which included all metropolitan and suburban regions and most rural areas of the state. Multiple directory sampling techniques developed by Frey (4, pp. 66-67) were used to select a proportionate stratified sample. One week after the initial mailing a reminder postcard was sent to all subjects. Non-respondents were sent follow-up letters and surveys three and seven weeks after the initial mailing. One-half of the final follow-up letters were sent by certified mail; the remainder were mailed first class.

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Data analysis utilized the Statistical Package for the Social Sciences and Rummage. Independent variables included demographic characteristics and selected financial management practices. The primary dependent variables were preferred sources of financial information and advice. Descriptive statistics were used to tabulate responses to the questionnaire.

RESULTS

Usable responses were received from 593 of the original 1000 subjects. Seventy-three surveys were undeliverable, seven subjects were deceased, and two moved out of state and were thus ineligible to participate. With the sample reduced to 918, the response rate was 64.6% of the sample.

Description of Sample

The respondents were almost evenly divided by sex (51% male, 49% female); almost 78% were currently married (table 1). The sample was predominantly white (95%) and Mormon (78%). Ages ranged from 18 to over 65 with the largest group 26-35 years old (28%) as shown in table one. Gross family income ranged widely with a modal value of $25,000 to $34,999 for 1983 (table 2). Median family income in 1980 was $20,205 in Utah and $20,835 in the U.S. (for white families). Most respondents indicated their income is received regularly (62.8%) while the remaining respondents indicated variability in the timing or amount. One-third of the sample had completed high school or vocational school, 13.8% had completed college and 14.7% received post graduate education.

TABLE 1 Marital Status and Age

	N	%		N	%
Never married	48	8.1	18-25	53	8.9
Married for first time	380	64.1	26-35	169	28.5
Remarried	82	13.8	36-45	105	17.7
Divorced	37	6.2	46-55	85	14.3
Separated	4	0.7	56-65	72	12.1
Widowed	39	6.6	Over 65	102	17.2
No response	3	0.5	No response	7	1.2
	593	100.0		593	100.0

The large number of persons 65 and over who responded, slightly more than 17% of respondents, is considerably more than the 9.3% of the Utah population who are age 62 and over. With the lowest median age (24.2 years) and highest birth rate in the nation [9], Utah has a young population. Median age in the U.S. in 1980 was 28.8 years, thus, the elderly are slightly overrepresented in this study. Perhaps the elderly have more time to respond to lengthy surveys. Also, older persons are less likely to move and thus were more likely to receive this mailing. Younger, more mobile persons are usually underrepresented in telephone based surveys [4]. This sample was slightly less educated than the Utah population which leads the nation in high school graduation rates and ranks near the top in total years of education by persons over 25 [9]. Utah has consistently ranked highest among states on educational attainment [3]. Although two-thirds of the population are members of the Mormon Church [9], they were overrepresented in this study (78% Mormon).

TABLE 2 Income

	N	%
Less than $5,000	31	5.2
$5,000-$7,499	27	4.6
$7,500-$9,999	25	4.2
$10,000-$14,999	67	11.3
$15,000-$19,999	81	13.7
$20,000-$24,999	102	17.2
$25,000-$34,999	110	18.5
$35,000-$49,999	70	11.8
$50,000 or more	47	7.9
No response	33	5.6
	593	100.0

In assessing financial management attitudes and practices, the results indicate that two-thirds of the sample devoted 1-4 hours per month to financial management tasks and two-thirds were somewhat or very satisfied with their current financial management techniques while one-fourth were dissatisfied and the remainder indifferent. The General Mills American Family Report on Money found that 9 out of 10 families report they are doing a "pretty good job" of money management [5]. While 30% in this study felt that money management was a hassle or a bother, almost half did not mind the tasks. More than half claimed to handle tasks on a regular maintenance basis while 11% admitted to leaving them until right before they had to be done and the remainder used a combination of the two methods. Almost 41% claim to have a written budget or spending plan compared to 49% of Americans surveyed in the General Mills Report [5]. However, these terms were not defined in the study and thus the subjects may have widely varying notions of a budget. Two-thirds claim to keep monthly records of expenditures but no information is available on the form of these records.

One-fourth felt that their income was less than adequate while almost half indicated they could afford "some of the things we want" (table 3). Almost half (49.7%) expect to be better off financially in 5 years, 10.3% expect to be worse off, 28.0% expect to be the same, and the remainder were unsure about the future.

TABLE 3 Income Adequacy

	N	%
Not at all adequate	44	7.4
Can meet necessities only	109	18.3
Can afford some of the things we want	286	48.0
Can afford about everything we want	90	15.1
Can afford about everything we want and still save money	56	9.4
No response	8	1.3
	593	100.0

A number of the questions relating to income adequacy, attitude toward financial management, and amount of time devoted to financial management were the same questions included in a study of satisfaction with financial management by Greninger, et al. [6] with a Texas sample in 1981. Responses to these questions were very similar to the original study with the exception of perceived income adequacy. In both samples the percentage of respondents who "can afford some of the things we want" was similar (44% in Texas, 48% in Utah) but 50% of the Texas sample and only 24.5% of the Utah sample felt they "can afford about everything we want" or "can afford about everything we want and still save money." This could be explained by the large difference in family income with 39% of the Utah sample (1984) and less than 11% of the Texas sample (1981) reporting income of less than $20,000 per year. Similarly 32% of the Texans had income in excess of $60,000 while 7.9% of the Utah sample earned more than $50,000.

Fully 120 respondents (20.2%) had completed a course in consumer education or personal finance with the majority (N=77) indicating a college course, 17 a high school course, 8 a community education course, and 18 some other source. Consumer education content was mandated by the Utah Legislature in 1976 but few separate courses are offered in the public high schools at this time [8]. In response to the question, "Do you think money management should be a required subject in public schools?" 82.6% responded yes, 6.6% no, and the remainder were not sure. Results of this survey could be used to strengthen the case for personal finance and consumer education courses in the public school. Despite the recommendations of recent national reports on the future directions of our schools, there appears to be strong support for consumer education among respondents in this survey.

One of the key objectives of the study was to determine where people might seek financial advice if they were experiencing money management problems. Thus, the focus was on sources of information and advice for a problem rather than financial planning services. Despite admonitions against using open-ended questions in mailed surveys [2], two such questions were included. The question "Who would you contact first if you wanted advice about a money management problem?" elicited replies from 540 of 593 subjects; 534 responded to "Where can a person in your community go to receive help or information about money management?" Responses were reviewed and condensed into nine categories (table 4). The largest single response category (30%) indicated that they would seek help from a family member; while 18.7% listed a bank, and 10.8% would seek out a financial planner. Almost 10% indicated they were not sure where to seek help if they experienced financial problems, while a variety of other sources were mentioned as shown in table 4. When asked to identify possible sources of assistance in their own community, fully 41.7% were not sure if such help existed, while 21.1% suggested a bank. The remaining replies were scattered among a variety of suggested sources of help. Despite the presence of two Consumer Credit Counseling Service (CCCS) offices in the state, only nine responses listed CCCS or a community credit or financial counseling service.

TABLE 4 Sources of Help

	Personal		Community	
	N	%	N	%
Bank	111	18.7	125	21.1
Other financial institution	20	3.4	18	3.0
Family	178	30.0	6	1.0
Friend	42	7.1	2	0.3
Church	25	4.2	37	6.2
Financial planner	64	10.8	50	8.4
Nowhere	3	0.5	14	2.4
Not sure	59	9.9	247	41.7
Other	38	6.4	35	41.7
No response	53	8.9	59	9.9
	593	100.0	593	100.0

Over 60% agreed that financial institutions should make a greater effort to provide money management information and counseling to customers. Almost one-fourth were not sure about this statement, while 14.3% disagreed and felt that customers would be better served in other ways.

However, as shown in table 5, 32.4% were not interested in free professional advice or counseling while 16.4% were very interested, with the

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remainder about evenly split between slightly (20.2%) and moderately (22.8%) interested; 22.8% were not sure. Almost one-fourth of the sample (22.3%) indicated a willingness to pay $5-10/-session. As the price increased, interest decreased. In retrospect, the price categories listed as possible responses are unrealistically low unless subsidized in some manner.

Table 5 Interest in Free Professional Counseling

	N	%
Not interested	192	32.4
Slightly interested	12	20.2
Moderately interested	135	22.8
Very interested	97	16.4
Not sure	38	6.4
No response	11	1.9
	593	100.0
Amount Willing to Pay		
$5-10/session	132	22.3
$10-20/session	51	8.6
$20-30/session	11	1.9
More than $30	4	0.7
Not sure	135	22.8
Not interested	239	40.3
No reply	21	3.5
	593	100.0

Given a choice of six factors to consider in seeking advice or counseling (table 6), reputation (24.6%), and cost (21.1%) were chosen most frequently. If faced with a financial crisis, 23.8% indicated they would most likely take on any available job while 19.7% would sell possessions and reduce expenditures.

Fifteen percent (N=89) indicated they had sought help or advice for financial problems while 85% replied that they had never sought help for a financial problem. Family (N=20), banks (N=17), and financial planners (N=16) were the most frequent sources of help. Only 77 of the 89 who sought help indicated they were able to locate appropriate services, with friends (N=28) being the most popular means of identifying a source of help. About half (N=32) were very satisfied with the help they received, 22 were mostly satisfied, 20 were somewhat dissatisfied, and 3 were not at all satisfied. Nine of these respondents had used the services of a Consumer Credit Counseling Service, two of whom were somewhat dissatisfied, four mostly satisfied, and three were very satisfied. Seven of the 89 who had sought help eventually filed for personal bankruptcy. Slightly more than 10% of the total sample of 593 were either behind in credit payments or had rescheduled payments during the preceding year (1983). Although Utah was not hit as hard by the recession as many other states, a number of large manufacturers reduced their work force substantially and have not returned to pre-recession levels.

TABLE 6 Important Factors in Selecting Counselor

	N	%
Cost	125	21.1
Convenience	13	2.2
Friendliness	9	1.5
Reputation	146	24.6
Time and effort required	18	3.0
Confidentiality	63	10.6
Other	22	3.7
No response	197	33.1
	593	100.0
Most Likely Action in Financial Crisis		
Take any additional job I can get	141	23.7
Turn to relative for help	44	7.4
Ask friend for help	5	0.8
Seek help from church	13	2.2
Sell some possessions and reduce expenditures	117	19.7
Borrow money from a financial institution	34	5.7
Apply for welfare or other government assistance	2	0.3
Declare bankruptcy	1	0.2
Seek professional financial counseling	49	8.3
No response	192	32.4
	593	100.0

DISCUSSION

Among the limitations of this study were the use of telephone directories as the sampling frame and the single state population. Problems inherent to phone directory sampling are documented by Frey [4]. Due to unlisted numbers, sharing of phones, and lack of phone service, phone directory samples exclude many younger, poorer and more mobile segments of the population. In addition, directories are out of date before they are published and do not list complete mailing addresses which can result in a lower rate of deliverable surveys.

In comparison with the rest of the country, the population of Utah is younger, family size is larger, and per capita income is lower. For example, in 1983 Utah ranked 47th among the states in per capita income [1]. Utah also has one of the highest levels of educational attainment [3]. The divorce rate, often associated with financial problems, is slightly higher than the national rate [3], at least in part due to the younger population.

A large majority (78%) of the respondents were members of the Mormon Church which operates its own welfare system and discourages dependence on outside agencies. Members are encouraged to seek help for their problems from their bishop, a lay clergy. Thus, these respondents may possess attitudes and characteristics with respect to financial management which might differ from a more diverse population.

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Responses to the two open-ended questions on sources of help for financial problems indicate that most of the respondents do not know where to find qualified help. Despite the emphasis within the Mormon Church on seeking help from one's bishop, only 4.2% of the sample indicated that they would turn to a religious leader for financial advice or counsel. Although the Consumer Credit Counseling Service (CCCS) maintains two offices in Utah, fewer than one percent listed CCCS or any other community counseling service as a potential source of help.

The most frequently cited source of help was a family member. This answer may be a result of the wording of the question which asked where the person would turn first. Another factor influencing this choice may be the strong emphases on family unity and self reliance fostered by the Mormon Church.

Fewer than 10% indicated they would seek professional help when facing a financial crisis. Moonlighting and selling possessions were most frequently cited as possible solutions to financial problems. Seeking professional help may be considered a last resort. Admittedly, the conclusions which might be drawn from the responses are limited considering the nature of the question. There may be a large gap between what people say they will do and what they choose to do within the constraints of a real problem situation. This limitation applies to a number of the questions in this survey which refer to hypothetical situations. Since the sample represented a general population, it is likely that most were not experiencing financial problems severe enough to warrant seeking professional advice at the time they completed the survey.

Banks were most frequently cited as a source of help in the community, most likely because they represent a familiar institution that is readily identified with money. While many financial institutions are currently advertising financial planning and advising services, much of this is geared to investing for the future rather than solving current problems. Bank personnel may be better prepared to sell their financial products rather than offer professional counseling services. An informal survey of all financial institutions in one county in Utah revealed that only one offers professional counseling services but most replied that the loan officer could handle any of their customers' problems [7].

While many financial institutions are jumping on the financial planning bandwagon, few if any, in Utah are offering financial counseling services. A few credit unions provide this service but the training of the personnel is most often as a loan officer. One local credit union lists the service but inquiries revealed that services are limited to a one-time meeting with a loan officer for members who had been denied credit [7].

RECOMMENDATIONS

The results of this exploratory research suggest some challenges and opportunities for consumer educators and financial counselors. So, the question remains: Where can a person find unbiased, qualified professional counseling for money management problems? Financial institutions seem to be in the best marketing position in the private sector to offer the service. If the results of this survey are any indication, they will not have to do much advertising. However, it appears that the financial institutions prefer to focus on the more lucrative area of financial planning, although it appears that counseling could reduce bad loan losses and increase the number of customers with money to save and invest. In the past the non-profit status and membership requirements of credit unions have distinguished them from other financial institutions. However, the trend has been toward credit unions opening their membership to the community and becoming more like other financial institutions. Perhaps credit unions can differentiate their services and expand their market share while providing a needed community service.

White [10] described a cooperative financial counseling service offered by university faculty under the sponsorship of Goldome Bank, a program which could serve as a model for other educators who would like to offer a community service. The opportunity to work in a financial institution offering financial counseling and consumer education could provide a valuable faculty sabbatical as well as student internships and employment opportunities. Such opportunities are most likely to be available in the larger metropolitan areas. Outside major population centers the choices narrow.

In large sparsely populated states with a widely dispersed rural population such as Utah, the Cooperative Extension Service is well positioned to serve this market segment which will likely be underserved by the private sector. With significant market penetration, a well known infrastructure, established bases in every county, and a college educated professional staff, the Cooperative Extension Service is a logical delivery system. Both agricultural and home economics professionals could be trained to provide appropriate education, information and counseling. However, due to the already heavy demands on county agents, the Extension Service should consider training paraprofessionals to provide financial counseling services. Due to the paucity of jobs in many rural areas there is likely to be a qualified pool of candidates for appropriate training. Consumer educators could develop student internship opportunities in this sector. In response to a statewide needs assessment, Utah's Cooperative Extension Service started a financial counseling training program for home economics county agents.

While the overwhelming support among respondents for requiring money management courses in the public schools is encouraging, few states will experience the growth in pupil enrollment taking place in Utah. Many other states are experiencing funding cuts, declining enrollments and school closings. Colleges are also suffering from the reduction in the supply of 18 year olds. There is a great need for consumer education in financial management and counseling services for adults, the bulk of our population who are not being served by our formal public education system. Comments written on numerous surveys indicated that respondents were confused about how they were supposed to learn money management skills. They also expressed dissatisfaction with "trial and error" and "on the job" training. Although remuneration may be low, many communities offer adult education programs which coordinate and arrange for advertising and facilities.

Whether looking for supplemental income, a mid-life career change, a sabbatical, or satisfying volunteer work, the results of this survey indicate the need for the services of consumer educators and financial counselors to provide adult education and counseling. The challenge lies not only in providing an appropriate service but in marketing it as well.

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THE SCOPE OF CONSUMER EDUCATION AS REFLECTED IN INTERDISCIPLINARY CURRICULUM GUIDES FOR SECONDARY EDUCATION PROGRAMS

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ABSTRACT

Three curriculum guides were content analyzed for their inclusion of consumer education concepts using Bannister and Monsma's classification of concepts in consumer education. Of the 36 concepts in the classification system, 16 were included in the health care curriculum, 25 in the nutrition curriculum, and 23 in the child passenger safety curriculum. There were 10 consumer education concepts covered in all three curriculum guides, but 5 of the 36 concepts were not covered in any of them. It is important for consumer educators to be involved as team members for developing interdisciplinary and integrative curricula.

The importance of consumer education for students in secondary school programs is accepted widely. However, the realities of the educational system often present varied impediments to the implementation of consumer education programs in the curriculum. Consumer educators who have lobbied for addition of consumer education courses in the curriculum have met obstacles stemming from the "back to basics" movement, the pressures for vocational programs, the demands for relevance to the interests of students (often translated to "trendy" courses), and the economic constraints leading to mandated program cuts.

Integrating consumer education into other subject matter areas is one approach that has been suggested as a means of balancing the need for including consumer education in the secondary curriculum with the constraints on adding to total requirements for students. Thus, although consumer education may be taught separately (i.e., as a specific couse by an individual teacher), it also may be included as an integral part of the curricula of other subject matter areas [3]. In some cases, this inclusion may reflect the relatively serendipitous incorporation of consumer concepts into other areas, and in others it represents a conscious attempt to use an interdisciplinary approach with a team that includes representation from consumer education.

Over the past few years, the popularity of interdisciplinarity as a concept with applicability to educational programs has been apparent. Increased attention to interdisciplinary approaches to educational programs has been influenced by factors such as increasing complexity of social problems, attempts to moderate against the narrow perspectives that may come from the trend toward greater specialization, the resource crunch, and evidence of the effectiveness of interdisciplinary approaches to education [2]. That consumer education often is considered to be a field of study that is in itself interdisciplinary does not preclude the potential validity of its incorporation into interdisciplinary approaches to other subject matter areas.

Although consumer educators may be pleased to find consumer education concepts integrated into other subject matter areas, a legitimate concern is the adequacy with which consumer education is taught if relegated only to these other areas. In part, this concern may stem from different definitions of the nature and scope of consumer education. It also may reflect the difficulty of applying some concepts to particular areas in which consumer education concepts may be applied. The consequence is that what at first may appear to be a step ahead for consumer education is inadequate if it is the only means of equipping students with the important knowledge and skills they need.

Conclusions about the adequacy of consumer education presented through curriculum in other subject matter areas often have been based on speculation rather than empirical information. Because of the importance of evaluating the adequacy of such programs as a vehicle for consumer education, a more systematic approach seems to be warranted. More specifically, attention needs to be given to the extent to which consumer education concepts actually are included in curricula focused on specific topics identified as relevant to consumer education.

METHOD

The classification of concepts in consumer education developed by Bannister and Monsma [1] was used as a basis for analyzing curriculum guides. This classification system was selected because of its broad scope and its general acceptance by consumer educators as a valid framework.

Three curriculum guides were selected for analysis: one focused on health care [4], one on nutrition [7], and one on child passenger safety [6]. Selection of these curriculum guides was based on the concern for similarity on some dimensions and diversity on others. Five basic criteria for inclusion were

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identified: (a) each curriculum guide was designated for secondary school students, (b) each was developed using an interdisciplinary framework, (c) each was designed to be incorporated into existing subject matter areas rather than to be taught as a separate course, (d) each was published within the previous 5 years, and (e) each included specific attention to consumer education as an objective. Differences among the curriculum guides also were relevant to their selection: (a) they represented a diversity in scope (ranging from relatively broad for health care to relatively specific for child passenger safety), (b) they varied in the subject matter areas for which they were targeted (home economics for the child passenger safety curriculum; health, home economics, science, and social studies for nutrition; and business, home economics, and social studies for the health care curriculum); (c) the recommended length of time for the units varied (ranging from a week for child passenger safety to integration over a 3-year period for nutrition); (d) the extent to which consumer education was identified as the focus varied (ranging from the specific focus for the health care curriculum to incorporation of consumer concepts into the goals/objectives framework for nutrition education to a less explicit focus for the child passenger safety curriculum); and (e) the composition of the teams responsible for the curriculum development varied both in size (ranging from 3 people for the child passenger safety curriculum to 5 people for the health care curriculum to 9 people for the nutrition curriculum) and also in disciplinary background (with home economics education being represented in all three but otherwise having diversity of other specializations represented and with no team including an individual who identified consumer education as the primary professional identity).

Content analysis was used to evaluate the curriculum guides for representation of the various consumer education concepts. Concepts through the third level of specificity in the Bannister and Monsma framework were used, with descriptors below this level used only as a basis for identifying inclusion of the larger concept. The analysis was carried out by the two investigators, one of whom was involved in the development of all three curriculum guides and one of whom was involved in the development of two of them.

For coding purposes, a concept was considered to be included in a curriculum guide if it was stated specifically as an objective, described in the content for a topic, and/or included in a learning activity. If a concept could be included in consideration of a topic within a unit but was not specified in the curriculum guide, it was not considered to be included. The representation of concepts was noted using a dichotomous system only; thus, even though a particular concept might be considered in several topics in the unit or developed in relation to several dimensions of that concept, only the occurrence was noted and not the extent of occurrence.

RESULTS

The specific results of the content analysis of the curriculum guides are presented in the Appendix. For each curriculum guide, an example of each consumer education concept identified as included in the unit is given by topic (as specified in that curriculum guide), along with a brief description of the context in which the idea is developed.

The three curriculum guides differed in the number of consumer education concepts included. Of the 36 third-order concepts included in the Banniser and Monsma classificatory system, 16 were included in the health care curriculum, 25 in the nutrition curriculum, and 23 in the child passenger safety curriculum. Each of the three curriculum guides included at least some attention to each of the three major concepts (decision making, resource management, and consumer advocacy). There were 10 consumer education concepts covered in all three curriculum guides, but 5 of the 36 concepts were not covered in any of them.

The way in which the concepts were presented differed rather markedly across the three curriculum guides. However, this seemed to be related to the organization and specificity of the curriculum rather than to the content.

DISCUSSION AND CONCLUSIONS

The results of this analysis suggest that there was relatively broad coverage of consumer education concepts in the three curriculum guides selected. Although there were differences in the extent of coverage, these differences did not appear to be related to length of the unit. Neither did they appear to be related to specificity of focus on consumer education per se; in fact, the curriculum guide with fewest concepts represented was the only one of the three specifically targeted for consumer education.

The method used here was a relatively basic one, and the curriculum guides were not selected randomly. Even though the analysis was limited to a dichotomous evaluation of concept coverage and did not include either extent or quality of coverage of the concepts, the approach is one that appears to have merit for answering questions of importance to consumer educators. Extension of the analytical method to include other dimensions is recommended.

Despite the rudimentary level of the analysis undertaken, results were obtained that may be viewed as encouraging to consumer educators who are concerned about presentation of consumer education at the secondary level. However, they also point out the importance of giving systematic attention to the scope of consumer education concepts to ensure appropriate representation of the different areas. Although it may not be essential for all concepts to be covered in every consumer education-related unit, careful planning is needed to ensure that all concepts are covered in the total curriculum presented to the students.

Monsma and Bannister pointed out the importance of both independence for and integration of consumer education [8]. More recently, Zelenak emphasized the importance of cooperation by consumer educators for achieving the goals of this area [9]. These approaches--specialization and integration--need not be inconsistent [5]; basic concepts within an overall framework of consumer education can be reinforced in a variety of other courses. However, it is important for consumer educators to be involved as members of the teams responsible for developing interdisciplinary and integrative curriculum to ensure adequate and appropriate representation of the broad range of consumer education concepts.

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APPENDIX

Table 1. Content Analysis of Consumer Education Concepts in Three Curriculum Guides.

Concept	Topic	Example of idea developed
	Health care curriculum[a]	
1.0 Decision making		
1.1 External factors affecting consumer decisions		
1.1.1 Economic system	Providing and paying for health care	Rising costs of hospital care
1.1.2 Political system	The consumer and health care	Food and Drug Administration's role in protecting the consumer against unsafe products
1.1.3 Social system	(None identified)	(None identified)
1.1.4 Ecological influence	(None identified)	(None identified)
1.1.5 Technological influence	(None identified)	(None identified)
1.2 Personal factors affecting consumer decisions		
1.2.1 Resources	(None identified)	(None identified)

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Concept	Topic	Example of idea developed
1.2.2 Lifecycle	(None identified)	(None identified)
1.2.3 Values and goals	(None identified)	(None identified)
1.2.4 Needs and wants	(None identified)	(None identified)
1.2.5 Lifestyle	(None identified)	(None identified)
1.3 Decision-making process		
1.3.1 Problem-issue	Diet and nutrition	Safe, economical approaches to weight loss
1.3.2 Information	Diet and nutrition	Value and use of nutrition labeling
1.3.3 Alternatives	Doctors, hospitals, and surgery	Ways to avoid surgery
1.3.4 Consequences	(None identified)	(None identified)
1.3.5 Decision-action	Doctors, hospitals, and surgery	Criteria for doctor and hospital selection
1.3.6 Evaluation	(None identified)	(None identified)
2.0 Resource management		
2.1 Financial planning		
2.1.1 Obtaining financial resources	Providing and paying for health care	Public assistance health insurance programs (e.g., Medicare)
2.1.2 Spending plan	(None identified)	(None identified)
2.1.3 Borrowing	(None identified)	(None identified)
2.1.4 Saving	(None identified)	(None identified)
2.1.5 Investing	(None identified)	(None identified)
2.1.6 Protecting	Providing and paying for health care	Types of health care insurance
2.1.7 Taxpaying	(None identified)	(None identified)
2.2 Purchasing		
2.2.1 Shopping decisions	Prescription drugs	Comparison shopping
2.2.2 Goods	(None identified)	(None identified)
2.2.3 Services	Prescription drugs	Services of pharmacies
2.3 Conserving		
2.3.1 Diminishing resources	(None identified)	(None identified)
2.3.2 Efficient use of resources	(None identified)	(None identified)
2.3.3 Resource substitution	(None identified)	(None identified)
3.0 Citizen participation		
3.1 Consumer protection		
3.1.1 Consumer rights	Additives, supplements, and health foods	Control of additives
3.1.2 Consumer responsibilities	Over-the-counter drugs	Precautions in using and storing over-the-counter drugs
3.1.3 Consumer laws	Additives, supplements, and health foods	Food Additives Amendment
3.1.4 Consumer assistance	The consumer and health care	Federal agencies that assist with solving individuals' food, drug, and health-related environment problems
3.2 Consumer advocacy		
3.2.1 Consumer assertiveness	Doctors, hospitals, and surgery	Complaint procedures for seemingly excessive medical bills
3.2.2 Consumer representation	(None identified)	(None identified)
3.2.3 Consumer organization	Providing and paying for health care	Consumer groups involved in health-care concerns (e.g., Consumers Union)

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Concept	Topic	Example of idea developed
	Nutrition curriculum[b]	
1.0 Decision making		
1.1 External factors affecting consumer decisions		
1.1.1 Economic system	Relationship between food availability and cost	Price elasticity
1.1.2 Political system	Goals and vested interests of various sources of information about food and nutrition	Influence of interests of organization/company on information provided
1.1.3 Social system	Relationship between food advertising and consumer behavior	Positive and negative aspects of food advertising
1.1.4 Ecological influence	Role of resources in food production, distribution, and consumption	Nonrenewable energy resources used in food production, distribution, and consumption
1.1.5 Technological influence	Relationship between agricultural practices and food production and safety	Impact of scientific innovations on quantity and quality of food production
1.2 Personal factors affecting consumer decisions		
1.2.1 Resources	Organizational and agency sources of information about food and nutrition	Information provided by different types of food-related organizations and agencies
1.2.2 Lifecycle	Nutrient and energy needs during infancy, childhood, adolescence, and adulthood	Effect of age on nutritional needs of the individual
1.2.3 Values and goals	Relationship between personal values and consumer decisions related to food purchase	Clarification of values related to food purchase
1.2.4 Needs and wants	(None identified)	(None identified)
1.2.5 Lifestyle	Time requirements for preparation of nutritious meals	Effect of resource management on time required to prepare nutritious meals
1.3 Decision-making process		
1.3.1 Problem-issue	Current food- and nutrition-related issues	Safety of food additives, value of megadoses of vitamins, and use of community resources to alleviate hunger
1.3.2 Information	Adequacy of information from different sources on various food- and nutrition-related topics	Evaluation of adequacy of information
1.3.3 Alternatives	Relationship between personal values and alternatives for solving food- and nutrition-related problems	Impact of values on perceptions of alternatives to solve food- and nutrition-related problems
1.3.4 Consequences	Potential consequences of alternative solutions to food- and nutrition-related problems	Costs and benefits to individual, community, and world from alternative solutions to food- and nutrition-related problems
1.3.5 Decision-action	Community and national roles in implementation of solutions to food- and nutrition-related problems	Ways communities and nations carry out decisions to solve food- and nutrition-related problems
1.1.6 Evaluation	Effectiveness in using problem-solving process for solution of food- and nutrition-related problems	Criteria for evaluating use of problem-solving process for solving food- and nutrition-related problems
2.0 Resource management		
2.1 Financial planning		
2.1.1 Obtaining financial resources	(None identified)	(None identified)
2.1.2 Spending plan	Menus for various economic levels	Food plans at different cost levels
2.1.3 Borrowing	(None identified)	(None identified)
2.1.4 Saving	(None identified)	(None identified)
2.1.5 Investing	(None identified)	(None identified)
2.1.6 Protecting	(None identified)	(None identified)
2.1.7 Taxpaying	(None identified)	(None identified)
2.2 Purchasing		
2.2.1 Shopping decisions	Consequences of obtaining foods through different distribution systems	Advantages and disadvantages of alternatives for places to purchase foods
2.2.2 Goods	Role of additives with respect to physical and chemical properties of food	Need for and functions of additives in food

Concept	Topic	Example of idea developed
2.2.3 Services	Organizational and agency sources of information about food and nutrition	Publications and programs about food that are made available by various organizations and agencies
2.3 Conserving		
2.3.1 Diminishing resources	(None identified)	(None identified)
2.3.2 Efficient use of resources	Role of resources in food production, distribution, and consumption	Food conservation practices
2.3.3 Resource substitution	Resource substitution in solving food- and nutrition-related problems	Expansion of alternatives for solving food- and nutrition-related problems through resource substitution
3.0 Consumer participation		
3.1 Consumer protection		
3.1.1 Consumer rights	Relationship between food additives and health of individuals	Government regulation of safety of food additives
3.1.2 Consumer responsibilities	(None identified)	(None identified)
3.1.3 Consumer laws	Information provided to consumers about food	Fair Packaging Labeling Act
3.1.4 Consumer assistance	Organizational and agency sources of information about food and nutrition	Food concerns of government agencies; international private, professional, and industrial organizations; and educational institutions
3.2 Consumer advocacy		
3.2.1 Consumer assertiveness	(None identified)	(None identified)
3.2.2 Consumer representation	(None identified)	(None identified)
3.2.3 Consumer organization	Role of food and nutrition in relation to political, social, economic, and health issues	Nutrition intervention programs (e.g., Food Stamp Program)
	Child passenger safety curriculum[c]	
1.0 Decision making		
1.1 External factors affecting consumer decisions		
1.1.1 Economic system	Passenger restraint selection and use	Price range of child restraint devices
1.1.2 Political system	Passenger restraint selection and use	Federal regulations for child restraint devices
1.1.3 Social system	Magnitude of automobile passenger safety problem	Incidence of deaths of children and teenagers from automobile accidents
1.1.4 Ecological influence	(None identified)	(None identified)
1.1.5 Technological influence	(None identified)	(None identified)
1.2 Personal factors affecting consumer decisions		
1.2.1 Resources	Passenger restraint selection and use	Options for getting child restraint devices through business establishments and community-based programs
1.2.2 Lifecycle	Passenger restraint selection and use	Appropriate passenger restraint systems for individuals of different ages and households of different compositions
1.2.3 Values and goals	Magnitude of automobile passenger safety problem	Reasons given for use and nonuse of passenger restraints
1.2.4 Needs and wants	Passenger restraint selection and use	Clarification of individual needs and wants in selecting and using a passenger restraint
1.2.5 Lifestyle	Passenger restraint selection and use	Effect of pattern of living on passenger restraint selection and use
1.3 Decision-making process		
1.3.1 Problem-issue	Magnitude of automobile passenger safety problem	Impact of automobile accidents on quality of life of individuals and families
1.3.2 Information	Passenger restraint selection and use	Acquisition of information about child restraint devices (e.g., advertising)

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Concept	Topic	Example of idea developed
1.3.3 Alternatives	Passenger restraint selection and use	Comparison of types of child restraint devices
1.3.4 Consequences	Protection given by restraint usage	Consequences of automobile accidents for restrained and unrestrained passengers
1.3.5 Decision-action	Passenger restraint selection and use	Trade-offs in decision not to use passenger restraint devices
1.3.6 Evaluation	Passenger restraint selection and use	Criteria for selecting child restraint devices
2.0 Resource management		
2.1 Financial planning		
2.1.1 Obtaining financial resources	(None identified)	(None identified)
2.1.2 Spending plan	(None identified)	(None identified)
2.1.3 Borrowing	Passenger restraint selection and use	Child restraint device loaner programs
2.1.4 Saving	(None identified)	(None identified)
2.1.5 Investing	(None identified)	(None identified)
2.1.6 Protecting	(None identified)	(None identified)
2.1.7 Taxpaying	(None identified)	(None identified)
2.2 Purchasing		
2.2.1 Shopping decisions	Passenger restraint selection and use	Comparison of characteristics of various child restraint devices and analysis relative to consumer guides
2.2.2 Goods	Passenger restraint selection and use	Transportation products
2.2.3 Services	Passenger restraint selection and use	Community-based child restraint device loaner programs
2.3 Conserving		
2.3.1 Diminishing resources	(None identified)	(None identified)
2.3.2 Efficient use of resources	Family trip planning	Advantages of routine automobile maintenance checks
2.3.3 Resource substitution	(None identified)	(None identified)
3.0 Citizen participation		
3.1 Consumer protection		
3.1.1 Consumer rights	Passenger restraint selection and use	Federal standards for child restraint devices
3.1.2 Consumer responsibilities	Responsibility for passenger protection	Importance of proper use of child restraint devices
3.1.3 Consumer laws	Responsibility for passenger protection	Mandatory passenger restraint laws
3.1.4 Consumer assistance	(None identified)	(None identified)
3.2 Consumer advocacy		
3.2.1 Consumer assertiveness	Passenger safety education	Means of expressing views on passenger safety to individuals, groups, and the community
3.2.2 Consumer representation	(None identified)	(None identified)
3.2.3 Consumer organization	(None identified)	(None identified)

Note. The concept classification system is from Bannister and Monsma [1].

[a] The health care curriculum used was *Health Care* by Brown, Boy, Miller, Richardson, and Wagoner [4].

[b] The nutrition curriculum used was *Tennessee Educates for Nutrition Now* (Grades 10-12) by Miller, Skinner, Vineyard, Riemann, Teets, and Cunningham [7].

[c] The child passenger safety curriculum used was *Child Passenger Safety: A Family Affair* by Cunningham and Miller [6].

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KNOWLEDGE OF MEN AND WOMEN ABOUT CONSUMER CREDIT LAWS, INSURANCE, AND ESTATE PLANNING: A PRELIMINARY INVESTIGATION AND ANALYSIS*

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ABSTRACT

In this paper knowledge of men and women in the areas of consumer credit, insurance, and estate planning is examined. An attempt is also made to determine if education is related to such knowledge for either sex. Through analysis of data collected in telephone interviews of 448 men and women in Kentucky, it is revealed that respondents of both sexes know more about credit laws and wills than they know about some basic components of insurance policies or planning for retirement income.

INTRODUCTION

Many empirical studies have been conducted to describe the financial management practices of various subgroups of our population (5). One result of these activities has been a variety of conclusions about the causes of inefficient financial resource use, including: lack of formal or informal education (2,3,5,6,), lack of direct involvement in decision making and implementation of financial plans (1), and inadequate information delivery systems (7). A second result has been that individual researchers have tended to focus on only one aspect of financial management to the exclusion of all others: knowledge of social security (7), use of credit cards (4), etc.

In this paper, preliminary analysis of data from a survey of 448 men and women in Kentucky are presented to expand the knowledge of educators and program planners in two ways: by examining the relationship of formal education to knowledge in three content areas, and by comparing responses among men and women to determine if there are differences in knowledge related to sex of respondents. For a discussion of involvement in various family financial activities, readers should refer to Perch and Flashman (6).

THE THREE CONTENT AREAS TESTED

Respondents were to be asked a series of questions to determine if some base level of knowledge exists in the areas of consumer credit laws, insurance, and estate planning. Because a telephone survey, involving many long distance calls, was anticipated, the number of knowledge questions that could be asked was severely limited.

The items presented for analysis are those that remain after testing items in a personal interview pilot test of the instrument. Three of the original thirteen were deleted from the telephone survey instrument because those questions were found to be either too technical or ambiguous to the respondents.

In determining what questions should be asked in each of the thre content areas, the researcher did not necessarily attempt to ascertain the two or three most important factors related to credit use. Rather, an attempt was made to ask questions in each content area in which information is widely available and publicized, through formal and informal means, in Kentucky. For example, although knowledge of credit laws is not necessarily related to wise use of credit, information has been made available to consumers through high school and college classes, television programming, articles in newspapers and magazines, community education classes, and programs of the Cooperative Extension Service.

To a lesser degree, the same could also be said of information regarding the need for wills (in the content area of estate planning). An equally important part of estate planning is planning for financial security during retirement years and two additional questions were asked: one about establishment of IRA's and a second about social security benefits.

In the area of insurance, an attempt was made to determine understanding of the term "deductible" which could apply to proper-ty and/or

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health insurance and is a very common feature of such policies. A question to determine understanding of "waiver of premium" was included because it is a commonly added rider to, or component of, life insurance policies. A question about the purpose of a disability income policy was also included precisely because it is an important, and often neglected, component of a person's insurance requirements.

DATA COLLECTION

Telephone surveys of households throughout Kentucky were conducted in April, 1984, by an independent research agency. Random digit dialing was used to determine telephone numbers to be called. Although calls were made at various times during the day, most calls were made during the evening to ensure maximum likelihood of reaching people of both sexes. Once a number to be called was determined, it was dialed as many times as necessary to reach potential adult respondents.

THE SAMPLE

The percent distribution of various characteristics of respondents appears in Table 1. Of the 448 people who participated in the survey, 56% were women. Families tended to have relatively few children living at home. Eighty-three percent of families surveyed had 2 or fewer children at home. Of those surveyed, 34% had some education beyond high school. Most (70%) were married at the time of the interview. Although 24% of families surveyed reported before tax income of $10,,000 or less, 26% reported before tax income of more than $30,000.

FINDINGS

Preliminary analysis was performed with the use of the Chi-Square statistics. Education was collapsed into two groups for cross-tabulations: those with a high school education or less and those with some education beyond high school. Responses of men and women to the knowledge items are shown in Table 2. Responses to knowledge items according to education of respondents, while controlling for sex, are presented in Table 3-5.

Male and Female Responses to the Knowledge Items:

Credit. As can be seen in Table 2, most respondents know that persons who declare bankruptcy don't lose all their possessions (68%) and that creditors must give a reason for denial of consumer credit, if requested by the applicant within a specified time (77%). Only fifteen percent of respondents know whether or not alimony payments must be included as a source of income on a credit application. No significant differences in knowledge were found between men and women for any of the three credit items.

Insurance. Of most interest regarding the insurance items is the low proportion of correct responses to all three items. Only thirteen percent understand the term "waiver of premium" and less than half of all respondents think that the purpose of a disability income insurance policy is to compensate for loss of eyes and limbs. Significant differences were found in responses of men and women to two of the three insurance questions. Although more women than men correctly answered the waiver of premium question, nearly twice as many women as men, reported that they didn't know. More men than women responded correctly to the deductible question.

Estate Planning. Only twenty-four percent of respondents answered the IRA question correctly. Forty-six percent of respondents based on their own earnings. Most respondents correctly answered the two questions related to wills, 76% and 81%, respectively. Significant differences in responses of men and women were found for only two of the estate planning items. The patterns are similar to those reported earlier. More women than men respond correctly, and proportionately more women appear to be willing to admit that they don't know.

Education and Knowledge of Consumer Credit, Controlling for Sex:

Significantly more respondents of both sexes, who have some formal education beyond high school, responded correctly to the bankruptcy item. Most people responded correctly to the denial of credit question, regardless of education or sex. Most people responded incorrectly to the alimony question, regardless of education or sex.

Education and Knowledge of Insurance, Controlling for Sex:

Among males, significantly more of those with more than a twelfth grade education understand the term "deductible". No other significant differences were found among respondents of either sex, regardless of education.

Education and Knowledge of Estate Planning, Controlling for Sex:

Among males, significantly fewer persons having a twelfth grade education or less responded correctly to the social security question than did males having more than a twelfth grade education. Formal education was not significantly related to knowledge for any of the other three items, among respondents of either sex.

DISCUSSION

From responses to the items analyzed in this paper, it would appear that both men and women are better informed about consumer credit laws and laws related to wills than they are about insurance or regulations that may influence strategies in planning for retirement income. Contrary to popular (and largely untested) belief, men aren't really more knowledgeable than women, at least in terms of the items tested. Women were found to be at least as knowledgeable as men for nine of the ten items tested (Table 2). Even when the responses of women are weighted so that the samples of men and women are treated as being of equivalent size, significantly more men than women responded correctly to only two of the ten items. It cannot be said that respondents are truly knowledgeable in any of the content areas except, perhaps, credit.

RECOMMENDATIONS

While it is important for educators to teach about consumer credit, laws and wills, educators must expand efforts to teach about insurance and planning for financial security during retirement. Attempts must be made, through high school and college classes, as well as through adult education classes and the various media, to better inform the public about these two crucial areas of financial decision making planning.

In Kentucky, specialists of the Cooperative Extension Service are trying to provide family financial management education to as many people as possible. It is hoped that the results of this project will be useful in planning future programs throughout the state.

Indepth case studies are also needed, from a representative sample of Kentucky's population, to provide a more complete understanding of the extent of knowledge of men and women, as well as financial management practices. Such a project is underway in Kentucky, but results obtained here may not be applicable to people in other states, or other parts of the country.

Additional analysis of this data is needed so that several variables can be controlled simultaneously. Such analysis would allow researchers to better understand factors that contribute to knowledge of consumer credit, insurance, and estate planning.

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TABLE 1. CHARACTERISTICS OF THE SAMPLE (N = 448)

VARIABLE	PERCENT DISTRIBUTION
SEX	
MALE	44
FEMALE	56
AGE (IN YEARS)	
≤ 24	10
25 - 40	38
41 - 65	37
> 65	15
NUMBER OF DEPENDENT CHILDREN AT HOME	
0	44
1	21
2	18
3	7
4	2
5	< 1
7	< 1
EDUCATION (GRADES COMPLETED)	
0 - 4	2
5 - 8	14
9 - 11	13
12	37
SOME COLLEGE OR TECHNICAL SCHOOL	18
4 YEAR COLLEGE DEGREE	10
SOME GRADUATE WORK	6
MARITAL STATUS	
MARRIED	70
SEPARATED	1
DIVORCED	3
WIDOWED	10
NEVER MARRIED	11
BEFORE TAX INCOME	
≤ $5,000	12
$ 5,001 - $10,000	12
$10,001 - $15,000	11
$15,001 - $20,000	15
$20,001 - $25,000	13
$25,001 - $30,000	11
> $30,000	26

TABLE 2: KNOWLEDGE OF MEN AND WOMEN OF CONSUMER CREDIT LAWS, INSURANCE AND ESTATE PLANNING.

ITEM	CORRECT		INCORRECT		DON'T KNOW	
	N	%	N	%	N	%
BANKRUPT PEOPLE LOSE ALL POSSESSIONS						
FEMALE	155	52	47	60	43	67
MALE	142	48	32	41	21	33
TOTAL	297	68	79	18	64	15
CREDITORS MUST REASON FOR DENIAL						
FEMALE	188	56	14	54	42	55
MALE	148	44	12	46	34	45
TOTAL	336	77	26	6	76	17
ALIMONY MUST BE INCLUDED ON CREDIT APPLICATION						
FEMALE	34	52	135	58	74	53
MALE	31	48	96	42	67	48
TOTAL	65	15	231	53	141	32
WAIVER OF PREMIUM PAYS FUTURE PREMIUM**						
FEMALE	33	60	74	46	135	62
MALE	22	40	88	54	83	38
TOTAL	55	13	162	37	218	50
THE HIGHER THE DEDUCTIBLE THE LESS ONE MUST PAY***						
FEMALE	95	47	73	55	74	73
MALE	107	53	59	45	28	28
TOTAL	202	46	132	30	102	23
DISABILITY INCOME INSURANCE PAYS FOR LOSS OF LIMBS						
FEMALE	22	55	175	53	46	67
MALE	18	4[illegible]	154	47	23	33
TOTAL	40	9	329	75	69	16

TABLE 2: (CONTINUED) KNOWLEDGE OF MEN AND WOMEN OF CONSUMER CREDIT LAWS, INSURANCE, AND ESTATE PLANNING

ITEM	CORRECT N	CORRECT %	INCORRECT N	INCORRECT %	DON'T KNOW N	DON'T KNOW %
IRA'S CAN BE ESTABLISHED BY ANYONE**						
FEMALE	62	60	139	51	44	72
MALE	42	40	136	50	17	28
TOTAL	104	24	275	63	61	14
IF NO WILL, STATE LAW DECIDES INHERITANCE***	CORRECT N	%	INCORRECT N	%	DON'T KNOW N	%
FEMALE	171	51	27	55	46	82
MALE	163	49	22	45	10	18
TOTAL	334	76	49	11	56	13
PERSON MAY CHOOSE EXECUTOR OF WILL	CORRECT N	%	INCORRECT N	%	DON'T KNOW N	%
FEMALE	192	54	30	59	22	71
MALE	165	46	21	41	9	29
TOTAL	357	81	51	12	31	7
MARRIED WOMEN MUST DRAW SS BASED ON OWN EARNINGS	CORRECT N	%	INCORRECT N	%	DON'T KNOW N	%
FEMALE	87	58	105	53	49	56
MALE	63	42	94	47	38	44
TOTAL	150	34	199	46	87	20

* p. ≤ .05
** p. ≤ .01
*** p. ≤ .001

TABLE 3. KNOWLEDGE OF CONSUMER CREDIT LAWS, CONTROLLING FOR SEX

ITEM	SEX FEMALE	SEX MALE
BANKRUPT PEOPLE LOSE ALL POSSESSIONS	(N = 245) %	(N = 194) %
Correct		
≤ 12th Grade	54***	62***
≥ 12th Grade	86	90
Incorrect		
≤ 12th Grade	25	23
≤ 12th Grade	6	6
Don't Know		
≤ 12th Grade	21	15
≥ 12th Grade	9	4
CREDITORS MUST GIVE REASON FOR DENIAL	(N = 244) %	(N = 193) %
Correct		
≤ 12th Grade	75	80
≥ 12th Grade	83	71
Incorrect		
≤ 12th Grade	6	4
≥ 12th Grade	4	9
Don't Know		
≤ 12th Grade	19	16
≥ 12th Grade	13	21
ALIMONY MUST BE INCLUDED ON CREDIT APPLICATION	(N = 243) %	(N = 193) %
Correct		
≤ 12th Grade	14	12
≥ 12th Grade	14	22
Incorrect		
≤ 12th Grade	55	57
≥ 12th Grade	57	39
Don't Know		
≤ 12th Grade	31	30
≥ 12th Grade	29	40

* p. ≤ .05
** p. ≤ .01
*** p. ≤ .001

TABLE 4. KNOWLEDGE OF INSURANCE, CONTROLLING FOR SEX

	SEX	
	FEMALE	MALE
WAIVER OF PREMIUM PAYS FUTURE PREMIUM	(N = 242) %	(N = 192) %
Correct		
≤ 12th Grade	13	11
≥ 12th Grade	14	13
Incorrect		
≤ 12th Grade	30	45
≥ 12th Grade	33	46
Don't Know		
≤ 12th Grade	57	45
≥ 12th Grade	53	41
THE HIGHER THE DEDUCTIBLE, THE LESS ONE MUST PAY	(N = 242) %	(N = 193) %
Correct		
≤ 12th Grade	35	43***
≥ 12th Grade	50	74
Incorrect		
≤ 12th Grade	33	39
≥ 12th Grade	24	17
Don't Know		
≤ 12th Grade	33	18
≥ 12th Grade	26	9
DISABILITY INCOME INSURANCE PAYS FOR LOSS OF LIMBS	(N = 243) %	(N = 194) %
Correct		
≤ 12th Grade	9	5
≥ 12th Grade	10	16
Incorrect		
≤ 12th Grade	71	83
≥ 12th Grade	74	73
Don't know		
≤ 12th Grade	20	12
≥ 12th Grade	16	12

* p. ≤ .05
** p. ≤ .01
*** p. ≤ .001

TABLE 5. KNOWLEDGE OF ESTATE PLANNING, CONTROLLING FOR SEX

	SEX	
ITEM	FEMALE	MALE
IRA'S CAN BE ESTABLISHED BY ANYONE	(N = 244) %	(N = 194) %
Correct		
≤ 12th Grade	26	22
≥ 12th Grade	23	22
Incorrect		
≤ 12th Grade	52	68
≥ 12th Grade	67	72
Don't Know		
≤ 12th Grade	21	10
≥ 12th Grade	10	6
IF NO WILL, STATE LAW DECIDES INHERITANCE	(N = 244) %	(N = 194) %
Correct		
≤ 12th Grade	67	82
≥ 12th Grade	77	86
Incorrect		
≤ 12th Grade	13	12
≥ 12th Grade	7	10
Don't Know		
≤ 12th Grade	20	6
≥ 12th Grade	16	4
PERSON MAY CHOOSE EXECUTOR OF WILL	(N = 244) %	(N = 194) %
Correct		
≤ 12th Grade	76	82
≥ 12th Grade	86	89
Incorrect		
≤ 12th Grade	13	11
≥ 12th Grade	11	10
Don't Know		
≤ 12th Grade	12	7
≥ 12th Grade	3	1

TABLE 5. KNOWLEDGE OF ESTATE PLANNING, CONTROLLING FOR SEX

	SEX	
ITEM	FEMALE	MALE
MARRIED WOMEN MUST DRAW SS BASED ON OWN EARNINGS	(N = 241) %	(N = 194) %
Correct		
≤ 12th Grade	40	23**
≥ 12th Grade	26	46
Incorrect		
≤ 12th Grade	39	57
≥ 12th Grade	55	35
Don't Know		
≤ 12th Grade	21	61
≥ 12th Grade	19	40

* p. ≤ .05
** p. ≤ .01
*** p. ≤ .001

CONSUMER EDUCATION: A DISCUSSION OF THREE PAPERS REGARDING ITS CONTENT AND FORM

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Abstract

Three papers are discussed which focus on the content and form of consumer education. Increased effort is needed by consumer educators to (1) meet the need for improved knowledge regarding financial planning and insurance, (2) identify concepts likely to be omitted when consumer education is integrated into existing courses, and (3) explore non-traditional delivery systems for financial counseling/advice.

The three papers presented in this session are most helpful in focusing our attention on the content and form of consumer education. Efforts such as these to determine the relative need for specific subject matter and to investigate the form in which information/advice might effectively reach consumers are particularly valuable to us as consumer educators.

Upon reading these three papers, I was struck first and foremost with the fact that we as consumer educators still have plenty of work to do. If the findings of the Kentucky study are at all representative of consumers around the country, the need for increased attention on the areas of financial planning, particularly for retirement, and insurance are certainly evident. In addition, we need to be aware that important concepts such as these can be easily omitted when consumer education is integrated into existing courses rather than being offered as a separate entity. We should increase our efforts to identify the concepts that are likely to be omitted and develop methods to assure their inclusion in typical programs of study.

The second point that struck me was the need for consumer educators to consider non-traditional delivery systems for the dissemination of financial information and services in addition to the classroom-oriented methods that we have primarily used. Although the vote of confidence for consumer education from the Utah respondents in Lown's paper was most heartening with 83% of the sample indicating that money management should be a required subject in schools, I was especially impressed with the reluctance of the Utah residents to seek professional help when facing financial problems, the uncertainty they expressed about where to turn for financial help, and their perception that financial institutions should be doing more for consumers in the areas of money management and financial counseling. No doubt Utah Extension Service personnel will find these survey results disconcerting and will increase their efforts to more visibly meet the money management needs of state residents.

In view of the perceptions of Utah residents about the role of financial institutions in the delivery of money management information and services, one wonders if the banks aren't missing a golden opportunity. This positive perception of banks among consumers was also supported in survey results recently published in The Wall Street Journal (1, p. 35) which indicated that 40 percent of consumers felt banks were "their most important or principal financial institution." However, given the small fee that the Utah residents were willing to pay for financial services such as counseling, it is understandable that banks have not jumped into the delivery of these services in any large-scale, direct way. It is noteworthy that most efforts by banks as well as other financial institutions have been geared toward customers with discretionary funds for savings and investments--more along the line of financial planning rather than counseling. This is perfectly understandable given the potentially more profitable nature of such planning services over counseling from the institutions' perspective.

Financial institutions may well have better access to "teachable moments" for certain consumers than we do in education. Such moments where financial management information might be particularly relevant for consumers could include when loan applications are approved or even possibly when they are not approved and when monthly spending exceeds income resulting in bounced checks and/or missed payments. Banks might be able to provide effective counseling services when there are early warnings that problems exist or are likely to develop. Just as insurance companies and police departments offer enrollment in defensive driving courses as a means of forgiving traffic tickets and/or reducing premium costs, perhaps banks might offer group counseling or seminars for those who have demonstrated money management problems such as bounced checks or inability to meet credit repayment schedules. Funding for such services would require, of course, a careful assessment of the costs and benefits to the financial institution. However, given that such institutions often provide financial support to non-profit credit counseling services, their more direct involvement in the delivery of such financial services might prove profitable to the institutions as well as to their consumers.

There are, of course, inherent risks to such novel delivery systems for financial services. The potential for conflict of interest should not be overlooked in situations where financial institutions engage in the delivery of financial counseling and planning services. Consumers would need to be aware of the inherent bias to favor the institution's well-being over that of the consumer. However, this type of interest conflict is similar to that prevalent in the financial services market involving such advisors as insurance salesmen and stock brokers. There is also the risk that such financial services might not prove particularly successful, especially if payment for the counselors is too closely tied to the commission structure prevalent in other financial services. Recently, The Wall Street Journal (2, p. 33) reported on two programs--one in California and one in Ohio--where financial counselors were hired at mortgage insurance companies and paid only if they were successful in getting delinquent mortgage payments back on schedule. Both programs resulting in fairly low rates of success--27% in Ohio and 5% in California. In fact, the counselors in California quit due to their low success rate. Unfortunately, the article gave few details as to the qualifications of the counselors and the point at which intervention was initiated. The regional differences were attributed to differences in the morality of the people; however, differences in monthly payments amounts and levels of debt may have been contributing factors as well.

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In concluding my general analysis of these three papers, it appears that their findings suggest increased effort by consumer educators to (1) meet the needs for improved consumer knowledge regarding financial planning and insurance, (2) identify concepts likely to be omitted when consumer education is integrated into existing courses, and (3) explore non-traditional delivery systems for providing financial counseling services. For the remainder of my remarks, I will direct my attention to the specific content and form of the three individual papers and attempt to make constructive comments about the methodology and findings.

LOWN PAPER

The first paper offers me my own version of conflict of interest since Lown included, with our permission, several questions from a survey conducted at the University of Texas by my colleagues and me. With that disclosure, I will attempt an unbiased analysis of her work as presented here today. This paper provided a useful overview of the perceptions of Utah residents about their financial situations, management practices and sources of advice for money management problems. I question the utilization of the terminology "sources of information" in this paper when the focus really seemed primarily on sources of financial counseling and/or advice. "Information sources" seems quite broad and would encompass the respondents' utilization of magazines, newspapers, newsletters, informal courses and even television as well as the ones included in this study: family, friends, professional advisors and formal coursework.

My major disappointment with Lown's paper is that the objectives led me to expect more in-depth analysis than the purely descriptive data presented. Objective 2 regarding relationships between sources of information/advice and selected demographic variables was not really addressed. Certainly from the descriptive information presented about the sample, Lown has the data on hand to do a more in-depth analysis relating selected demographic characteristics to perceptions regarding sources of advice and problem-solving strategies. I trust that this objective will be dealt with in a future paper; in the meantime, I recommend the omission of this objective from the text of this paper.

CUNNINGHAM AND MILLER PAPER

In the second paper, Cunningham and Miller addressed the reality that consumer education content may be incorporated on a piecemeal basis in existing coursework rather than being offered as a separate and distinct entity. They indicate that this approach is vulnerable to omissions whereby students might miss important consumer education concepts. To test this notion, the researchers utilized the classification of consumer education concepts developed by Bannister and Monsma to analyze three specific curriculum guides. Although I think the idea of using such a conceptual framework to monitor coverage of key consumer education concepts is excellent, I question their specific application in this paper. It seems much more beneficial to apply the Bannister/Monsma framework to a composite of all guides included in a typical student's program of study or at least to a randomly-selected set of courses typically required for graduation. This application would have allowed the researchers to identify important consumer education concepts that are likely to fall through the cracks in programs utilizing this integrated consumer education design.

In reviewing the concepts included in the three guides analyzed in this paper, I was pleased to see the coverage on the decision-making and purchasing concepts. As an instructor in personal finance, I was first disappointed to note the concepts that were not included in the three guides: saving, investing, taxpaying, diminishing resources, and consumer representation. Upon further reflection, however, I realized that these specific content areas were really not particularly appropriate for curriculum guides in child passenger safety, nutrition and health care. Although some of these concepts might be expected to show up in the health care guide, the only missing concept that seemed particularly applicable to all three guides was that on consumer representation or advocacy.

The use of a classification construct would be helpful in selecting curriculum guides where two or more are available on a similar topic. In other words, this method of analysis might prove a useful tool for comparison shopping among available guides. Given that curriculum guides are often not representative of what actually goes on in the classroom, I would hope these researchers apply this classification construct to the content of lesson plans and evaluation measures used in randomly-selected classrooms. Lastly, I would caution the researchers that applying the construct to a curriculum guide they have authored may lead to biased findings. It is probably better to rely on a outside panel of reviewers when applying the construct in a research project involving a self-authored curriculum guide.

PERCH AND FLASHMAN PAPER

The needs assessment approach used by Perch and Flashman to identify the knowledge of Kentucky residents about certain financial areas is commendable. Just as in the Lown paper, I was pleased to see sampling on a statewide basis. The Kentucky researchers justified the specific questions included in their instrument on the grounds that they were not the most important to ask but the ones where information had been widely-disseminated in their state. However, given the high costs associated with long distance telephone interviews conducted by an independent research agency, I was disappointed that some more important questions were not included. Even in the areas included, it would have been helpful to have some questions about financial behaviors/practices that reflect application of knowledge rather than mere knowledge itself. For example, in the area of estate planning, I would like to know if the respondents had up-to-date wills and if they knew how the state distributed property when there was no will. These questions seem much more important to consumer well-being than the questions which were asked, i.e., whether or not the respondents knew that state laws decided inheritance when there was no will.

The incomplete wording of the questions included in the tables of this paper made me uncertain in a few cases as to the correct response. For example, the statement "the higher the deductible, the less one must pay" was confusing in that I was uncertain whether the "the less one must pay" pertained to the premium cost or the up-front, out-of-pocket cost when filing a claim. Even though it is difficult to test knowledge over the telephone in a rigorous way, an instrument such as that used in this study should be assessed in terms of its reliability and validity. Although the sample characteristics were compared to those of Kentucky residents during the verbal presentation, this information needed to be incorporated into the text as well. I find it difficult to believe that all respondents willingly participated in the survey; information is needed regarding response rate, size of the initial sample, and how those who refused to participate were handled.

With regard to the findings, I was puzzled by the interpretation of data regarding gender differences. The conclusions that "women were as knowledgeable as men for nine of the ten items" and that "significantly more men than women responded correctly to only two of the ten items" appeared to be contradictory. Generally, the researchers tended to overstate their results with regard to whether males or females were more correct in their responses to specific questions. With Chi square analysis, it is only possible to determine if differences existed in the distribution of responses of the groups and to point out obvious differences.

The data presented in Table 2 indicates that significant differences existed in the distribution of responses by gender for only four of the statements. Unfortunately, the presentation of data in Table 2 makes comparisons by gender difficult and vulnerable to misinterpretation. For example, this table presents the percentages of those who answered correctly who were male and female (column 2). These percentages cannot be compared unless the female sample is equal in size to that of the male sample, which was not the case in this study. With more female than male respondents, the percentage of those answering correctly who are female will naturally tend to be greater than the percentage answering correctly who are male. A comparison of the respective percentages of males and females who answered each question correctly, incorrectly and don't know would have made the presentation of data in Table 2 more accurate and easier to understand. An example of this misinterpretation occurred when the authors stated that more women than men gave correct responses to the two estate planning questions where significant differences were observed. When I calculated the respective percentages of men and of women who answered these two questions correctly, I found that considerably more men than women were correct on the item, "If no will, state laws decide inheritance"--84 vs. 70 percent, respectively. Slightly more women than men were correct on the item about establishing IRAs--25 vs. 22 percent, respectively. In general, simplification and clarification of the table formats utilized in this paper would have facilitated reader understanding of the study's findings.

Even with these specific methodological, design and analytical concerns in mind, I believe the authors of these three papers are to be congratulated on their efforts. Research studies such as these are greatly needed to assist us in improving our consumer education delivery systems. These authors have certainly focused our attention on some of the important issues involving the content and form of consumer education.

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THE CURRENT FAMILY FARM CRISIS

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ABSTRACT

During the 1970s, improved agricultural markets led to greater net income for farmers. This, coupled with inflation and the trend toward larger farms, led many farmers to expand through leveraging their equity. The boom period has ended and many farmers face foreclosure. Concentrated in the central states among those less than 45 years old, their demise affects both rural communities and American consumers.

One of the important trends in agriculture during this century has been a decline in the number of family farms. For example, Missouri had approximately 112,000 farms in 1982, half as many as in the 1920s. Most of this reduction in the number of farm families has resulted from natural attrition as farm youth selected non-farming occupations. The attrition was natural only in that opportunities to enter farming were diminishing as agricultural research rapidly developed new technology. The new technology reduced the need for farm labor, increased the need for financial capital and resulted in larger and larger farms to fully realize the benefits of the technological advances. In this process, there were admittedly times where many families were forced from farming in mid-career through involuntary foreclosure or bankruptcy but, since the 1930s, the decline in the number of farms was primarily voluntary.

The trend toward fewer farms is not new. The conditions, however, leading to the current acceleration of involuntary farm foreclosures are unique since they affect a lone sector of the economy while most sectors of the economy show signs of growth. The current crisis in contemporary agriculture and the future prospects for the American food production system deserve discussion. The months ahead warrant public scrutiny of the governmental choices affecting a sector so important to American consumers. The task of this paper is to describe how the current problem arose and to document its magnitude.

THE PROMISING 1970s

In the summer of 1972 bad weather in the Soviet Union resulted in Russian food shortages. Our government, in an election year, responded to their crop failure by selling the Soviets excessive amounts of grain from our national reserves. Not only did this sale bolster both farm incomes and incumbent re-election aspirations but it, also, bolstered food prices as there simply was insufficient grain to meet domestic demand at prevailing prices (14:56).

The Department of Agriculture had spent most of its history managing food surpluses and, therefore, left acreage controls in place for 1973 which, coupled with the corn blight of 1973, further restricted supplies and fueled renewed price escalation. By 1974, agricultural prices had risen 69 percent from their 1971 levels (2:342).

Price increases were not the only change during this period. The value of the dollar declined from 1971-1973 which, coupled with a substantial increase in U.S. food aid, resulted in a 180% increase in grain and soybean exports between 1970 and 1974 (18:58). In January of 1975, commenting on the need for increased food production and slower world population growth, Earl Butz, then Secretary of Agriculture, replied, "To falter in either, or to fail at either, is to court disaster" (1:34). Farmers must have agreed wholeheartedly for Production Credit Association loans had increased 16.4% and Federal Land Bank loans had increased 27.8% over 1974 (4:6). Farmers were answering the call to feed the world and improve the U.S. balance of payments deficit brought on by the petroleum export restrictions of OPEC.

Farm families were elated by the trend in agricultural prices for, just as their baby-boom children were completing school and returning to the farm, the prospects for profitable farm expansion looked feasible. Certainly the farm magazines did little to dispell this notion by publishing items such as the following:

> . . . two main trends: 1) Continued enlargement of farm enterprises on a surprising scale and 2) A firm family farm orientation even as some farmers become huge and others become part-time, residential operators. (9:16)
>
> Agriculture will remain a growth industry. We expect more countries will develop the financial means to offset crop failures with imports. That and a growing, one-world conscience which demands the prevention of starvation when it is preventable. (17:44)

By 1980 the optimism was still prevalent. Land prices were continuing their rapid escalation of recent years and led the U.S. Department of Agriculture to forecast continued price increases of 14% annually for coming years (3:13). Why shouldn't land prices continue to escalate? Net farm incomes in 1979 were 10% higher than in 1978 and 50% higher than in 1977. Besides, a survey of 600 rural bankers found the value of farm land to have increased 5.7%, on average, over the period of July to September 1979. On an annual basis, this result was similar to results released by the Federal Reserve Bank of Kansas City which reported an increase in land prices of 20%, on average, during 1979 (3:18). In February of 1980 the cover article of Farm Journal, "Can You Make $3,000 Land Pay?", quoted an Iowa farmer:

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> The way I look at it, I'm letting the boys use some of the equity I already have in the land. It'll be a while before I'm ready to quit farming and by that time, there's no telling what prices will be. If we don't buy now, we may not be able to at all (13:11).

What appeared like wisdom, the use of financial leverage to expand the farming operation, left many with the burdensome debt loads of today. The bubble burst so quickly that, four months after publishing the above, Farm Journal quoted another Iowan, James J. McGuire, land auctioneer from Holstein, Iowa:

> . . . farms worth $3,000 an acre three to six months ago may have dropped to $2,000 since March 1 -- and may be worth even less. We don't know because we haven't been able to get acceptable bids (16:45).

Clearly, the roots of today's crisis were planted in the 1970s. The agriculture community, however, did not foresee what was to come. Even after the crisis had started, they remained reluctant to recognize it and even more reluctant to do anything to alleviate it. Robert Bergland, Secretary of Agriculture under President Carter, recognized the problem in testimony before the House Agriculture Committee:

> The big farmers are in trouble -- especially those who bought land at high prices . . . many aren't going to make it, and I don't intend to do a thing about it (16:45).

The staff economist of Farm Journal, John Marten, was still optimistic, however, even eight months later in December of 1980:

> . . . for 1985, I expect total grain exports of at least 150 million metric tons and a total U.S. dollar volume of at least $75 billion . . Looks like Uncle Sam may be playing the role of "controlling" your profits rather than "helping" your prices by 1985 . . . With livestock producers back in the profit column and exports booming, the next five years look very bright indeed (11:13-14).

Very bright indeed if you had not borrowed heavily to finance the expansion of your land and/or capital equipment holdings. Very bright indeed if the debt was not necessitated by your children joining the family enterprise or initiating a new farm business. Very bright indeed if your occupation was that of a rural bankruptcy lawyer. For 1985, current estimates of expected agricultural exports stand at $36.5 billion (10:28) and Uncle Sam is not controlling profits while he is considering ceasing agricultural price supports.

THE CURRENT FINANCIAL SITUATION

Not suprisingly, the farmers most vulnerable to the financial crisis are those with the largest debts. Data published recently reports that farm debt has risen from less than $50 billion in 1970 to around $200 billion in 1984. Meanwhile, farm assets have also grown, albeit at a lower rate, from slightly less than $300 billion in 1970 to slightly more than $900 billion in 1984 (10:27). The question remains, who is being hurt by today's agricultural markets? An analysis of recent data from the Missouri Mail-In Records program, a computer aided financial management subscription, grouped members in thirds on the basis of debt-to-asset ratio. The top one-third had a debt-to-asset ratio of less than 15 percent. The middle group had debt-to-asset ratios of between 15 and 35 percent, and the bottom third had debt-to-asset ratios greater than 35 percent. The group with the lowest debt-to-asset ratio had an average net income of about $17,000. The middle category had mixed success, and the third category reported major losses. A simple inability-to-pay 12 to 14 percent interest on debt, at a time when receipts produced a meager 2.8 percent average return on investment has plummeted the third group into depression. Ironically, the farmers in the third category were the most productive by traditional measures of efficiency such as bushels of grain per acre or pounds of milk per cow. Equity in the farm enterprise and lack of income source diversification, rather than inferior production ability, seem to be the primary determinants of farm insolvency. If it could be shown that purchased crop inputs were similar between groups, this data would be a contradiction to the official opinion that the farm crisis is the free market weeding out poor managers.

If similar net income generation capabilities can be inferred from debt-to-value ratios for farmers across the United States, then a picture of a financial stressed farmer may be gleaned from a recent survey conducted by Farm Journal (assisted by Iowa State University and the University of Missouri-Columbia). In Table 1 are some of the results from the survey reported in the March 1985 issue of Farm Journal. It should be noted that the U.S. weighted sample column is an adjustment to reflect for the actual number of farms in each region.

As can be seen in Table 1, the majority of farmers are not in serious difficulty. The weighted sample results show that two-thirds of American farms have debt-to-value ratios of less than 40%. However, the other one-third is in serious difficulty with 15.4% of American farmers having less than 30% equity in their operations. Those in the serious to extreme leverage categories, those with debt-to-value ratios exceeding 40%, are heavily concentrated in the Central region. In the Central region fully 42% of the farmers surveyed find themselves in these categories. Whether this difference is a result of more aggressive farm expansion, greater severity of recent weather conditions or other market differences is not known.

Equity in the farming operation is highly correlated to the farm family life cycle. During the age period of the mid-20s to early 30s, a young family must decide whether farming will be its career choice. The decision to farm begins the

TABLE 1: Percent of Farmers by Debt-to-Value Ratios and Region

	Central n=314	South 274	East 288	West 347	U.S. 1,223	U.S. weighted
Debt/Value:						
10% or less	31.5	44.9	53.1	36.9	41.1	37.9
11% to 40%	26.0	30.3	26.7	36.6	30.2	28.8
41% to 70%	21.5	13.9	13.9	16.7	16.6	17.9
over 70%	21.0	10.9	6.3	9.8	12.1	15.4

development of a farming operation, and if farm assets are not held they must be secured. This usually involves borrowing relatively large sums of money to purchase livestock, equipment and, perhaps, land. At a time when family living expenses are greatest, because of the cost connected with establishing and rearing a family, so are the needs for agricultural capital. When the family reaches the mid-40s, family living expenses are fewer and the repayment of many equipment and land debts are more feasible. The distribution of farm debt by age categories was also reported by Farm Journal and is presented in Table 2 where it is readily apparent that younger farmers are the most vulnerable to today's credit crisis.

TABLE 2: Percent of Farm Respondents by Age Category and Average Debt-to-Value Ratios by Age Category

	Age of Operator				
	35	35-44	45-54	55-64	65
% of Respondents:					
Central	20	21	21	28	10
South	14	23	24	22	17
West	11	22	29	26	12
East	15	22	24	26	13
Average Debt/Value Ratio:					
Central	63	61	46	24	10
South	42	45	35	24	6
West	44	43	26	20	15
East	54	27	18	12	9

As can be seen, families that began to farm in the mid-1960s or earlier (45 years and older) purchased land and equipment at relatively low prices and were able to repay most debts with the high commodity prices of the 1970s. However, couples that began to farm ten years later (under 35 years of age) were buying initial equipment and land at rapidly inflating prices, only to see the price of farm commodities and farm land drop in the 1980s. Vulnerability to the farm crisis is as much an accident of birth as a product of poor management decisions.

In the Fall of 1983, 2,000 responses from a randomly drawn sample of Missouri farmers were received. Fifty percent of the respondents reported no farm debt. However, only 29 percent of the medium size farms and 17 percent of the large farms reported no debts. Furthermore, 37 percent of the operators of large farms and 31 percent of the operators of medium sized farms indicated that they were very much concerned with the debt on their farming operation. More than three-fourths of the young farmers (less than 45 years) with large farm operations indicated that they were "very much concerned" with the level of their farm debt. In general, the younger farm families and those without non-farm income expressed the most concern.

Off-farm income helps many farm families finance debt and farm-family living expenses. The Farm Journal survey found that families in the Central region were less likely to have off-farm income. In the South, off-farm income is more than one-half of total farm family income; in the East, 47% and 44% in the West. However, in the Central region, non-farm income represents only 24%

of total farm family income (12:15). It is expected that the lower figure results from less opportunity for non-farm income. Medium and large sized farms require more labor input and, if hired help is not feasible, the farm owners must perform these tasks. Also, it is expected that many rural communities in the Central region have fewer non-farm and non-farm related occupations in the economic base of the community.

The perceptions of farmers are quite consistent with the apparent views of the financial community. A recent survey of twenty farm lenders in the Northern half of Missouri indicated that they expect as many as a third of all Northern Missouri farm operations to face involuntary liquidation over the next three years.

The financial community itself is in some difficulty. The St. Louis Post-Dispatch reported on a large number of Missouri rural banks with disappearing equity. Ten banks were identified within the state that would be bankrupt within the year if they continue to exhaust their capital at the rate they did in the second quarter of 1984.(15:1) This problem is not unique to Missouri. It was reported in the Columbia Tribune that between January and August of 1984 the number of "problem banks" in the United States increased by 100.(5:2) Eighty of these were in 10 of the states usually referred to as America's agricultural heartland: Illinois, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Nebraska, South Dakota, Wyoming and Montana.

The effect of the current crisis is not restricted to farmers and their lenders. Agricultural and consumer goods suppliers are also affected. The Federal Reserve Bank of Kansas City recently reported a survey of Tenth District bankers indicating that 13 percent of rural non-farm businesses are having severe financial troubles.

Many rural families are suffering from the crisis in ways that go far beyond farm finances. The suicide, divorce and child abuse rates among rural Americans have increased markedly during the last two years. An informal sampling of Missouri social agency employees, in the Northern half of the state, revealed that between January and February of 1985 their case loads approximately doubled. Undoubtedly, the anxiety associated with family farm failure can account for much of this growth.

The impact of financial stress in agriculture varies across the country. It varies from region to region, from state to state and from farm to farm; depending as much on local weather conditions, local farm land markets and local lending practices as on macro-economic factors. It is misleading in one sense to call the current situation a farm crisis or even a farm family crisis. It is a crisis of the total rural community, a crisis resulting from factors largely beyond the control of the rural population. Undoubtedly, some rural Americans will be unable to continue their current operations and will have to make a transition to other occupations. Others will continue in their chosen line of work but will be adjusting to changing circumstances. It is a fact that rural families will adjust to the changing environment of rural America -- they have been for years. How that environment adjusts, at this time in history, is in our hands, the hands of the American citizenry. Choices need to be made as to the type of food delivery system we would like to have serve us and our descendants. Do we want a system that is controlled by the few to the detriment of many? Already 45% of all the beef slaughtered in this country are slaughtered by two companies, Iowa Beef Producers and Excel (8:19). Excel is owned by Cargill, one of five grain companies controlling 90% of all overseas grain trade. The four largest broiler processors increased their share of the broiler industry by 16% from 1978 to 1981 and are still growing.(7:40) Farmers do not sell their production to competitive markets, nor do they buy most of their capital equipment from competitive markets. It is, therefore, unrealistic to expect them to profit when they buy from oligopolies and sell to oligopsonies.

The locus of control is shifting from the farm to the board rooms of American agri-business. The market structure currently being threatened brings the American consumer the lowest food prices in the world. In 1985 the percentage of take-home pay spent on food is expected to decline further by decreasing from 15 to 14.6 percent (6:2). Whether food remains inexpensive for Americans is anybody's guess; however, my guess is that it will continue to be inexpensive at least as long as the current structure of farming exists. When our food eminates from larger and larger farms, when those farms are worked by wage workers (farmers) employed by land controllers (corporations), when we begin to see the devastating impact this system has on the land and on the American lead in world agricultural productivity, and when those in control have the power to affect food prices in the new "free market", how much will we pay for our daily bread?

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FARM FAMILY FINANCIAL STRESS: IMPACT ON CONSUMERS

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ABSTRACT

A short-run farm financial crisis will not affect urban consumers in a significant way. The impact on food prices will be minimal. The impact on non-food items will be most evident in rural areas and in the cost of financial services. A long-run crisis in farming could lead to a diminished standard of living for all consumers.

The current farm financial crisis is critical for about 10 percent of farmers. Their debts were more than 70 percent of their assets where 40 percent is considered the beginning of financial stress. On a national average, farm debt to asset ratios were about 17 percent during the 1970s rising to 24 percent by 1984. The farmers most likely to be in financial trouble are producers of basic grains and oilseeds who recently financed land purchases.

Some of these indebted farmers will go out of business. Historically, about 2 percent of farmers go out of business annually compared to .4 percent of other business enterprises (U.S. Dept. of Commerce). Short-run impacts of the current farm financial crisis on consumers will be discussed in four parts.

First, the impact on food prices and food consumption will be minimal. There is an excess supply of basic agricultural commodities which has suppressed and will continue to hold down both farm prices and the cost of these farm commodities in retail food products. Furthermore, this cost comprises only one-third of the price consumers pay for food in a grocery store and 17 percent of food purchased in restaurants. It would take a sustained 10 percent increase in basic commodity prices to increase retail food prices 3 to 5 percent.

Sluggish export markets and continued adequate supply will tend to hold prices down also. With a rise in the worldwide value of the dollar, agricultural exports have become very expensive; competitive selling exerts downward pressure on their price. The total supply of agricultural food products is unlikely to change. Ownership of the land, buildings and equipment will change, but the land will continue to produce crops under different tenure arrangements. Even if some land goes out of agricultural production, technology exists to produce more food on less land.

Second, the impact on prices and availability of non-food items will be limited to rural communities and to financial services. As farm income decreases, demand for goods and services sold by rural, mainstreet business decreases. If these businesses falter, fewer goods will be available at higher prices in rural towns. When financial institutions lose money on loans, they charge more for all other services to all other customers. Higher interest rates, fees, and minimum balances along with lower returns on savings could result.

Third, the impact on the federal budget deficit and consumers' tax bill remains to be seen. If sympathy for farmers' plight and stress is strong, continued farm price supports and short-run loan repayment relief will be legislated. Regulatory action to protect farmers from foreign competition are import quotas or export subsidies. Import quotas could decrease the supply and increase the price of foods like sugar and dairy products. Export subsidies could result in higher food prices. All these programs compete for consumer's tax dollars.

Current political forces in favor of cutting federal spending predict, however, that farm price supports will be lowered allowing market forces to dictate farm incomes. Tax dollars used for agriculture will probably decrease. Alternative programs to provide income support, relocation and retraining for displaced farm families will, however, not be costless to taxpayers.

Fourth, there will be some impacts on the labor market and rural land prices. The entrance of ex-farmers and their families into the labor market will increase all the problems associated with unemployment and retraining in the communities to which they move. Mortgage foreclosures and forced land sales will temporarily depress rural land prices, but investors who purchase that land now will probably find it to be valuable in the long run.

The current farm financial crisis is not likely to have a major impact on consumers. If farm prices continue to be depressed over the long run and a large number of acres go out of production, a food shortage could, conceivably, occur. In this case, food prices and expenditures would rise; discretionary spending would fall. This is a recipe for diminished living standards. Given the state of agricultural technology, world food demand and traditional government programs, this is unlikely to happen in the foreseeable future.

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FARM FAMILY FINANCIAL STRESS: POLICY AND PROGRAM ISSUES

Cynthia Needles Fletcher, Iowa State University[1]

ABSTRACT

The economic problems in agriculture and the alternatives for dealing with these problems have become dominant policy and program concerns. With a growing number of rural families facing economic hardship, Iowa has expanded programs to provide medical and food assistance. The Iowa State University Cooperative Extension Service has launched the ASSIST education program, designed to help rural families and communities to deal constructively with financial adjustments.

INTRODUCTION

The economic problems in agriculture and the alternatives for dealing with these problems have become dominant policy as well as program concerns. The effects of high real interest rates, falling land values, diminished international trade in agricultural commodities and weakening of farm firms from adverse weather conditions, low prices, and casualty losses have combined to create the most serious financial problems in agriculture in a half century [1, p. 689]. Although attention has focused on the federal government's response to the problem, policies and programs at the state and local level have been initiated to help rural families and their communities deal with the financial adjustments occuring in agriculture.

THE PROBLEM OF AGRICULTURAL DEBT

Total farm debt in the United States totaled $11.2 billion in 1950. That figure rose to slightly more than $22 billion in 1960, to almost $49 billion in 1970, and to $85 billion in 1976. The amount of farm debt rose sharply to over $216 billion in 1983. As a percentage of farm income, the growth of farm debt has been even more striking. From a level of 92 percent of net farm income in 1950, farm debt rose to 215 percent of net farm income in 1960, to 334 percent in 1975, to 795 percent in 1980, and to 1,350 percent of net farm income in 1983 [4,5,6].

Farm debt is not distributed evenly over all farmers. In a review of the distribution of debt and assets among farm operators, Harl cites Federal Reserve estimates that as of January 1, 1984, 58 percent of the farm operators had a debt-to-asset ratio of 10 percent or less. The figure for large farms was only 21 percent, but 73 percent of the small farms were in the zero-10 percent category indicating little, if any debt. By contrast, 8 percent of the farmers had a debt-to-asset ratio of more than 70 percent. The most striking feature of the over-70 percent category is that the 8 percent of farm operators held 8 percent of the assets, but were responsible for 31 percent of the farm debt. In general, with real interest rates at the 10-12 percent range, few operators in the over-70 percent group can survive two years unless the operation has an unusually profitable combination of enterprises or the firm is infused with nonfarm income or capital. National data show that 19 percent of the farm operators have debt-to-asset ratios above 40 percent with that group holding 22 percent of the assets and responsible for 63 percent of the debt[3]. In general, it is believed that nearly all farm operators with debt-to-asset ratios above 40 percent are losing net worth because of high interest costs.

Several states, beginning with Iowa in March 1984, have conducted state-level farm financial surveys in an effort to determine the extent of farmer distress and the nature and distribution of farm debt.[2] Iowa is currently conducting a second survey during March, 1985. The Iowa survey results as to distribution of debt are summarized in Table 1. The Iowa data show that 10 percent of the farm operators have debt-to-asset ratios above 70 percent, hold 9 percent of the assets, and are responsible for 25 percent of the total farm debt.

TABLE 1. Estimated Percentage Distribution of Iowa Farm Operators, Debt, and Assets

	Debt-to-Asset Ratio			
	0-10%	11-40%	41-70%	Over 70%
Operators	36	35	18	10
Amount of assets	30	40	21	9
Amount of debt	3	32	40	25
Average age of operator	61	53	48	46

SOURCE: Iowa Department of Agriculture, Iowa Crop and Livestock Reporting Service and Iowa State University, Farm Finance Survey (March 1984).

Table 2 shows that farms in the 41-70 percent debt-to-asset category are the largest in terms of assets, on the average. Data show that the group in the 0-10 percent category are, in general, older farmers [2]. In light of the high cost of borrowed capital and the relatively low rate of return on farm assets, Harl concludes that almost all operators with debt-to-asset ratios above 40 percent are moving toward insolvency. Eventually that means approximately two thirds of the farm debt, backed by less than one third of the assets, is expected to be in liquidation unless conditions change as to interest costs or rate of return, or both.

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[2] See Farm Finance Survey (Iowa Crop and Livestock Reporting Service, March 28, 1984); Jolly, Robert, "Farm Finance Survey: Assets and Debt Distribution," Iowa State University Cooperative Extension Service, June 1984. Similar surveys have been conducted in Wisconsin, Minnesota and New Mexico.

TABLE 2. Average Amount of Assets and Debt-to-Asset Categories, Iowa ($ in Thousands).

	Debt-to-Asset Category				
	0-10%	11-40%	41-70%	Over 70%	All Farms
Operators	$459	$624	$628	$477	$543
Debt	15	146	341	394	160
Net Worth	444	478	287	83	383
Average debt-to asset ratio	3	23	54	82	29

SOURCE: Iowa Department of Agriculture, Iowa Crop and Livestock Reporting Service and Iowa State University, Farm Finance Survey (March 1984).

The long run solution will require both asset and debt restructuring. In the future, farmers will not carry as much debt as they did during the 1970s. They will likely own less and rent more of their assets. To some extent, labor will be substituted for capital -- the reverse of the process seen during the 1970s. But this restructuring process will take time. In the longer term, policies are needed to deal with more basic food and agricultural issues. In the near term, policies and programs are needed to minimize the economic and human costs of adjustment.

POLICY AND PROGRAM INITIATIVES

In addition to the federal response to debtor distress in agriculture, state policies and programs have evolved to address the needs of rural families facing severe economic pressures.[3] The magnitude of the economic changes facing Iowa are challenging policymakers, educators, communities, and families to develop creative and innovative strategies to reduce and alleviate economic distress and related social and psychological pressures.

Welfare Assistance

Two programs administered by the Iowa Department of Human Services are meeting certain basic needs of rural families facing severe economic hardship. The "medically needy" program involves 1984 legislation which authorized the spending of $2 million for the creation of a new program to provide free medical services to families whose incomes barely keep them off welfare. The program began in November, 1984 and has served the medical needs of a limited number of rural families.

In contrast, a growing number of self-employed Iowans, including farmers are eligible to receive food stamps.

Under food stamp resource guidelines, farm land, equipment and livestock are exempt from the program's net worth requirements. Also, stored crops are not considered in net worth requirements when they are encumbered by liens or security agreements. Thus, income is the primary test for farmers. Under current guidelines a family of four qualifies for the program if monthly gross income is less than $1,069 and monthly net income is less than $419.

The ASSIST Program

The ASSIST program is being conducted by the Cooperative Extension Service at Iowa State University. It is partially supported by a special appropriation from the 1984 Iowa legislature which was granted July 1, 1984. ASSIST is an educational program designed to help rural Iowa families and their communities to deal constructively with the financial adjustments occurring in agriculture. The program has four parts:

General Awareness Programs. To inform community leaders and officials of the scope and severity of farm financial problems, a meeting was held in each of Iowa's 12 Extension areas in September, 1984. About 1,500 people received information about current financial conditions, factors that led to those conditions, their likely impact on families and communities, and policy alternatives. Since the initial round of meetings, many similar workshops have been held for targeted groups such as ministers, mental health counselors, and those in the medical profession.

FarmAid. Under the umbrella title, FarmAid, group workshops and individual farm financial analysis and counseling is provided by Extension staff and Extension associates. Twenty-five associates have been hired using supplemental state and federal funds to expand this labor-intensive program. Farmers' adjustment plans are analyzed with the aid of microcomputer financial planning software developed at the University of Minnesota. FarmAid is a family-oriented program that incorporates values, communication, and stress management into a financial planning framework. Approximately 2,000 farm families have participated in FarmAid since the expanded program began in December, 1984. A survey conducted in late January indicated that about 65 percent of the families can, through some type of restructuring, probably remain in agriculture. Data suggest that 20 percent will exit agriculture and the remaining 15 percent of participants do not have critical financial problems.

Community Resource Committees. These committees have formed at the option of local communities to address the needs of local families and the impacts of the downturn in agriculture on community services. The agendas of the committees vary considerably but have included implementation of food pantries, publication and distribution of community resource directories, fostering of support groups and peer counseling networks, and stress management programs.

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[3] See 49 Federal Register 41, 220 (1984). On Sept. 18, 1984, President Reagan announced a four-point program including the FmHA loan "set aside," federal loan guarantees, expanded management and financial services, and assistance in servicing loans.

The serious impact of the farm problem on rural communities is clearly outlined in a recent study conducted by ISU extension economists at the request of the Iowa legislature. The study found that 61 of the state's 99 counties experienced a drop in retail sales during the 1984 state budget year, compared with 22 in 1983. Five thousand businesses have gone bankrupt in the state in the past four years and 15,000 jobs have been lost. Currently, 25 percent of the farmers leaving the land also are leaving their communities and it is predicted that that percentage will increase. The economists paint a bleak picture of rural communities with shuttered businesses, empty schools, and deserted main streets.

Agricultural Credit Short Course. Professional level short courses were conducted for agricultural lenders, attorneys, and farm financial advisers with emphasis on loan analysis, problem resolution, and counseling. The courses provided 10-30 hours of instruction on the following topics: 1) analysis and identification of problem loans, 2) use of computerized analytical tools, 3) economic concepts in the restructuring of a farm business, 4) tax and legal implications, 5) bankruptcy, 6) foreclosure, 7) security agreements, 8) communications, counseling, and stress management techniques.

In January, 1985 Governor Branstad asked several Iowa organizations and agencies to cooperate in providing assistance to farm families and communities. One response to the request has been the establishment of a telephone hotline. The hotline is administered by the Iowa State University Cooperative Extension Service in cooperation with the Iowa Department of Human Services and the United Way of Greater Des Moines. In addition, many other Iowa organizations are serving as referral points for the hotline service. Financial referrals are made to on-call representatives from the Farm Credit Systems, the Iowa Banker's Association, and Farmers Home Administration. Most legal calls are referred to an Extension staff attorney. Job-related questions are most often referred to the Iowa Dislocated Farmer Program. Calls for assistance with basic needs are referred to the Department of Human Services. The 24-hour, toll-free hotline went into service February 1, 1985. Approximately 85 percent of the calls have dealt with financial and legal concerns.

COPING STRATEGIES

Just as there is a need to create policies and programs to prevent and reduce the current economic distress in agriculture, there is a critical need to help rural families cope with their current financial situation. Coping refers to a process through which individuals and families use available resources to meet the demands of economic distress [7, p. 283]. Coping responses may involve direct action to solve problems or the regulation of emotions and meanings associated with economic distress. Several types of coping influence the extent of individual and family delibitation associated with economic distress: family financial management, family-related decision making, definitional coping, and the use of social supports.

To assess the coping strategies used by rural families, a survey is currently underway to determine interest off-farm employment and wage demands, financial management practices used to increase resources or reduce family living expenses, strategies used to cope with health care costs, and perceptions of stress levels. These data are currently (March 1985) being collected via the Iowa Farm and Rural Life Poll, a cooperative project of the Iowa State University Agricultural and Home Economics Experiment Station, I.S.U. Cooperative Extension Service, and the Iowa Department of Agriculture. A statewide random sample of approximately 2500 farm operators participate in the biannual survey. Findings from the study will provide extremely useful information for policy makers and planners of research and extension educational programs.

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PROJECT SUPPORT

Dottie Goss, University of Minnesota[1]

ABSTRACT

Project SUPPORT is an intensive program effort by all program areas of the Minnesota Agricultural Extension Service to serve current needs of farm families. The areas of subject matter focus are financial planning, stress management, decision making and support.

Project SUPPORT, an intensive program effort of the Minnesota Agricultural Extension Service, has three target audiences: families who have left farming recently or will do so soon, farm families who are having some difficulty presently with cash flow, and farm families who presently have a profitable operation. The program uses a family systems approach.

While estimates vary regarding the number of families in each category, perhaps one fourth to one third of Minnesota farm families are in the first two categories. The program began by serving the needs of these families first. Longer term programs will address the changing needs of the last category of continuing farm family operations.

All program areas (agriculture, community and natural resource development, 4-H and youth, and home economics), have this as a high priority program for 1985. Many programs are cooperative across two or more program areas. Agent in-service education for all agents has been conducted with a multi-discipline approach. Agents are working as teams in many instances. Several agents from each area of the state have been identified as released time agents to spend a major portion of their time working on this project. They work in five or six counties. All program areas have released time agents.

Present major content areas include farm and family financial planning and management, decision making, stress management, and support. Community networks are being established to provide the range of support needed and to provide readily identifiable access points for assistance. Family resource management and family social science faculty have made major contributions to agent in-service in decision making, family financial planning and management, the linking of farm and family management, stress management and the use of community resources. Agents have also received education on techniques for working with families under stress.

Delivery methods for this program are quite varied. They include a state wide toll free hot line for use by families, one-to-one consultations with agents including released time agents, use of computer analysis for farm cash flow and long term planning, small group meetings, classes for farmers and farm families, farm family support groups, classes for "good neighbors," open meetings regarding the farm situation, radio, television and newspaper exposure, home study courses and publications.

Although the program is still just evolving, it has received good support from the University and the farm community.

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MANAGING FOR TOMORROW

Kathy Prochaska-Cue, University of Nebraska[1]

ABSTRACT

The University of Nebraska Cooperative Extension Service program for farm and family financial management, Managing for Tomorrow, has as its goal the development of an optimum management plan unique to each farm and farm family. An in-depth workshop and follow-up consultations involve everyone affected by the management decisions to be made.

Like many states in the past two years, Nebraska has become more aware of the farm problem. A year ago the Department of Agricultural Economics at the University of Nebraska-Lincoln developed several grant proposals for a comprehensive program dealing with the farm crises at the individual farm level. To help you understand the scope and urgency of this problem in Nebraska, let me share a few statistics with you.

Nebraska ranks first among the states with the highest percentage of employment in agricultural-related industries. Problems in the agricultural sector impact a large percentage of the total population directly and the entire population indirectly--and quickly. A year ago past-due FmHA loans were running just over 30 percent; today the figure is estimated to be closer to 40 percent. According to research done by UNL agricultural economist Bruce Johnson, the average debt/asset ratio for the state's 60,000 farmers was 30 percent a year ago, but 2/3 of the farms had just 53% of the assets and carried 93% of the farm debt. Johnson also predicted that by 1986 one of every 10 farms in Nebraska would face disclosure, and 30% of all farm loans would be delinquent. Manufacturing jobs outside of the two metropolitan areas of Lincoln and Omaha in the state dropped 25% in the past year, so off-farm employment was not an alternative in many areas of the state.

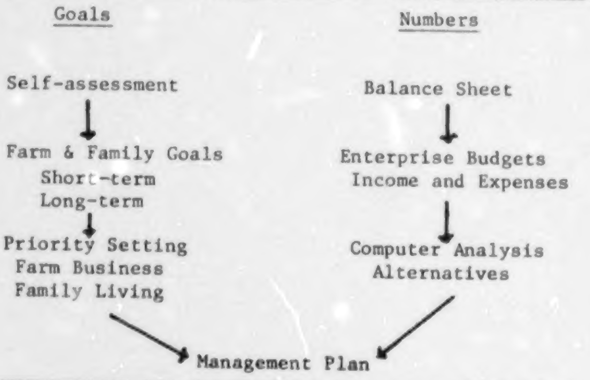
PROGRAM AND PARTICIPANTS

Managing for Tomorrow (MFT) is the title of the Cooperative Extension Service program dealing with the farm crises in Nebraska. Funded with more than $200,000 in grant money from a special Nebraska legislative bill and the Nebraska Department of Agriculture as well as Extension Service--USDA and the Nebraska Cooperative Extension Service, this program provides 24 hours of intensive workshop instruction and four individual counseling sessions. Participants are charged a $200 fee to enroll in the program. In some cases, creditors pay part or all of the enrollment fee. The objective of the MFT program is the development of an optimum management plan unique to each farm and farm family.

The program is open to all farm and ranch families not just those experiencing a financial crises. Of the first 300 families to complete the workshops and intitial consultations, 20% were considered in a comfortable financial position--they may not even recognize any problem with the farm economy; another 20% had fairly high debt loads but were managing well and had a positive cash flow; 39% had a high debt load and a negative cash flow--they could probably hold on to their businesses for a year or two without any major change; 15% will be forced to make major adjustments to get financing in 1985; and the remaining 6% will be going out of the farm business in 1985. Everyone in the MFT program had some debt compared to almost 40% of Nebraska farmers with no debt at all.

MFT WORKSHOP PLAN

MFT is a holistic approach to farm financial management. Two major areas are stressed: goals and numbers.



On the first day of the workshop, participants do a self-assessment in which they begin to look at the fit between themselves and farming. Intra-family communication is stressed. One person cannot represent the farm in this program (unless the operation is truly a one-person business). All persons who have a stake in the farming operation and are directly affected by farm business decisions must be involved in the workshops and the consultations. The main objective of the MFT program is to involve everyone who has, or should have, a voice in managing the farming operation, or who will be affected by the management decisions that are made.

On day one of the workshop on the numbers side of the program, a balance sheet for the farm enterprise is completed.

Goals are identified on day two, both farm business and family living goals and for both short-term and long-term. At the same session on the numbers side of the program, an enterprise budget with specific income and expense is developed.

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[1] Extension Family Economics/Management Specialist

On day three priorities are set for goals for the farm business as well as the family living area. On the numbers side a computer analysis of the farm business is done, alternatives generated and discussed. Then at the fourth session the two areas mesh into a comprehensive management plan, the discussion of which continues on into the individual consultations. Followup consultations center on this plan, revising and adjusting it to fit the particular situation.

MANAGEMENT ALTERNATIVES

Many participants in the MFT program have had to make basic adjustments to lifestyle to survive. Drastic, and often painful, reductions in family living expenses are common. But not all adjustments have been in the family living area. For example, some farmers have had to rethink whether they could keep hired help.

Some of the other business alternatives suggested by the MFT staff have included refinancing with private money, using the FmHA set-aside program, renegotiating the land lease on rental land, increased use of livestock facilities, the rental of unused buildings and facilities, and additional custom feeding of livestock.

SUPPLEMENTAL EFFORTS

A second part of the MFT program is the toll-free phone number which provides information referral, including the recruitment of MFT program participants. In addition, a statewide ministerial group is providing a crises intervention hotline outside of the MFT program.

Additional funding of $76,000 was obtained early this year from the State Department of Agriculture to support short-term financial counseling centers during February and March. The purpose of these centers is to assist farmers who need help in obtaining planting loans this spring. Assistance includes preparation of balance sheets and cash flow plans, and help for families in analyzing their situation and evaluating alternatives. There is no charge for this limited service which will provide up to eight hours of assistance per client family. In addition, MFT staff rented a vacant house in the town of Verdigre, a very rural, isolated community who last year saw its only bank close. Because of the almost exclusive agricultural base in this community, MFT has provided emergency assistance.

ROLE OF THE HOME ECONOMIST

Extension specialists in family economics and family life have been involved in training the MFT staff in areas of listening and counseling skills, estimating family living costs, and family living cost alternatives. The family economics specialist also helped with the writing of the extensive goals publication used in the workshop. Extension agents in home economics are involved in providing information related to stress management, family communication, and family living expenses especially in the areas of cost-cutting alternatives, both in individual and groups settings.

THE FUTURE OF MFT

MFT was originally funded for two years. The future of the program depends on the need and obtaining future funding. The estimated cost of the program per family reached is approximately $500. In a state whose economy is so agriculturally based, it is doubtful if the need for a progarm like MFT will cease after two years.

SUMMARY OF SYMPOSIUM ON FARM FAMILY FINANCIAL STRESS

Katey Walker, Kansas State University[1]

By whatever name -- problem, concern, stress or crisis -- the difficulties faced by many farm families today are receiving widespread attention. As family and consumer economists, we are concerned on the micro level with the adjustment decisions being made by individuals and families; and on the macro level by the impact on the agricultural community, rural life and the long range structure of the food supply system. A variety of public as well as private choices are of crucial concern.

With so many farm families in stressful situations, the difficulties have rippled through the U.S. economy's largest sector: the food and fiber chain. This chain accounts for over 20 percent of the GNP; about 22 million workers employed by fertilizer companies, equipment manufacturers, trucking and shipping firms, grocery stores and food processor; and hundreds of other related industries. Pressure, conflict, loss of control and uncertainty have produced complex problems resulting in increased stress in an already highly stressful environment.

The roots of today's crisis were planted in the 1970's -- and even earlier -- but it has taken a period of time for the agricultural community and the nation to recognize the severity and scope of the problem. The government budget deficit, the resulting high interest rates and lowered foreign demand for agricultural products are top priority issues today. Young farmers who purchased land recently with financial leverage techniques are among those hit most severely at the present time. The need for agricultural capital tends to coincide with peak demands for family expenditures. Weather, availability of off-farm income and management decisions, as well as the timing of land purchases and family life cycle stage, affect the ability of the farmer to survive today's conditions.

Rural communities, including banks, businesses of all kinds and social and educational institutions, also suffer from the farmers' difficulties.

Emotional stress has increased with a rise in family and personal problems and feelings of failure and grief. People often don't distinguish between the failed farm business and failure as a person or family.

Food policy and consumer concerns, as well as farm prices and production considerations, could well be added to the political rhetoric as debate on the "1985 Farm Bill" progresses. Urban consumers may be interested in today's farm crisis in relation to their own budgets and their emotional beliefs about the importance of the family farm as a way of life.

While short range effects on food prices and consumption will be minimal, a possibility of an increase in nonfood prices, particularly for financial services, may be felt in rural communities and gradually throughout the economy. The effect on tax dollars is less predictable as varying efforts to reduce the federal deficit are explored.

Expansion of medical care assistance and of food stamp eligibility are possible policy choices. Toll-free hotlines to obtain help with financial, legal or emotional problems are coming into use in several states.

Agricultural technology has continually been developed to enhance the productivity of the American farmer. Financial decision-making and marketing expertise are growing in importance and need added emphasis.

A diversity of educational efforts, such as Project Assist, Project Support and Managing for Tomorrow, are being developed because the rural problem is not an isolated problem. Computerized programs and one-on-one advising focus on farm financial decisions. Family living topics -- family expenditure needs, quality of life and use of human resources are receiving attention. Similarly, a variety of ways to mobilize community resources and services are coming into use. "Good neighbor" classes and local support networks are other ways of addressing the issue. Educational approaches have included a holistic approach, involving self-assessment, goal setting, priority setting and financial analysis for both farm and family, or programs of a separate but parallel nature on agricultural economics and in family living. In either approach, communication and cooperation among family economists and agricultural economists adds strength to the programming.

Educators and researchers have used today's symposium as an effective way of exploring the nature and severity of the farm family's financial stresses and to share ideas and materials designed to help those involved make effective decisions and adapt to the changes confronting them. The organizers wish to thank the following speakers for their contributions to this symposium.

Robert O. Weagley - University of Missouri
"The Current Family Farm Crisis"
Jean Kinsey - University of Minnesota
"Impact on Consumers"
Cynthia Needles Fletcher - Iowa State University
"State Policy Issues"
Dottie Goss - University of Minnesota
"Project SUPPORT"
Kathy Prochaska-Cue - University of Nebraska
"Managing for Tomorrow"

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THE CONSUMER EXPENDITURE SURVEY: INFORMATION EXCHANGE AND OVERVIEW

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ABSTRACT

This paper discusses the procedure specified for invited panelists in addressing issues related to the Consumer Expenditure Survey (CE) data. The purpose of the panel session was to exchange information between users and providers with respect to data collection, management, production and usage. A brief history and background of the CE Survey are also presented.

INTRODUCTION

The Consumer Expenditure Survey (CE), conducted under the direction of the Bureau of Labor Statistics (BLS), U.S. Department of Labor, produces the most current source of detailed information on expenditures, income, and family characteristics for households in the United States. As such, the CE data are an important source of information for researchers in consumer and family economics, consumer behavior and marketing, and demography.

The CE includes two components: the Diary and the Quarterly Interview. Results from the Survey are made available to users by BLS in news releases, bulletins, Monthly Labor Review articles, and public-use computer tapes.

To date, over 200 purchasers have acquired the 1972-73 public-use computer tapes and the 1980-81 Diary tape. Yet, the number of data users is expected to far exceed the number of tape purchasers, since the data can be obtained by either accessing the tapes made available by purchasers or through the other means of distribution noted previously. Exposing individuals to the CE data provides an unique opportunity for BLS and users to share information concerning our knowledge of and experience with these data. The purposes of this paper are: (1) to review the procedure promoting such an exchange, and (2) to provide a brief overview of the CE as a foundation for the discussion.

PROCEDURE

A panel session was organized, for the 1985 ACCI Annual Conference, to provide an opportunity for the users and providers of the CE data to exchange ideas regarding data access, uses, and the needs of users. Additional topics for discussion included data collection, management, and processing. Representatives from government agencies, private industry, and academic institutions were contacted to serve on the panel. Participants with knowledge of the data were selected to represent a cross section of various disciplines (i.e., consumer and family economics, consumer behavior and marketing, and demography). Speakers were asked to discuss the CE data and data uses for their respective organizations and disciplines. Representatives from BLS were present at the session to address questions from panel members and the audience concerning the Survey and data.

From the exchange, answers to the following questions were anticipated:

(1) Who are the users of the CE data as opposed to the purchasers?

(2) How are these data being used?

(3) Why do interested non-users of the data not use the data?

(4) What suggestions can be made to help facilitate the dissemination of these data?

(5) What individuals or organizations offer services, such as data set manipulation and analysis, to individuals interested in using the CE data, but who have limited computer resources?

(6) Does a CE Data Users Group exist? If yes, who is the contact person? If no, would users be interested in such a group? (NOTE: The BLS does not have the authority to organize a users group.)

OVERVIEW OF CE SURVEY

The Bureau of Labor Statistics has conducted expenditure surveys for nearly a century. The first survey, conducted in 1888-91, obtained cost-of-living data for the working United States population. Subsequent periodic surveys, beginning in 1901, were used to develop a Cost of Living Index which evolved into the Consumer Price Index. Since late 1979, the CE data have been collected on an ongoing basis using both a Diary Survey and a Quarterly Interview Rotating Panel Survey.

The Diary Survey, initiated in 1972-73, is designed to collect information on relatively small expenditure items. It is assumed that Survey respondents have difficulty recalling this information over long periods of time. Items in this category include, among others, detailed food, meals out, and household products. Expenditure data are collected at sample units over a two week (14-day) period.

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The Quarterly Interview Survey is composed of five interviews for each sample unit. During the first interview, information is collected on demographic and family characteristics which is used to classify the unit for analysis. Additional information collected include an inventory of the major durable goods of each consumer unit, and a one month recall of expenditures which is used for "bounding" purposes only. The "bounding" technique is designed to improve reporting at subsequent interviews.

Subsequent interviews occur at three month intervals. During these interviews, questions are asked concerning expenditures made during the three month period between interviews. Data are collected on relatively large expenditures such as the purchase of property, vehicles, education, and major appliances. In addition, data are collected for expenditures which occur at fairly regular intervals such as rent, utility bills, and clothing.

The Bureau of the Census collects the data for the BLS. Each survey has its own independent sample of consumer units. Consumer units are selected at the primary sampling unit (PSU) level. The PSUs are comprised of 85 urban areas, previously selected and defined by the BLS for the Consumer Price Index, and 16 rural areas. Over 52 weeks of the year, 5,000 Diary Survey consumer units are sampled. The Interview sample is selected on a rotating panel basis, targeted at 5,000 consumer units per quarter. Each quarter, one-fifth of the sample is new to the survey. After being interviewed for five consecutive quarters, each panel is deleted from the Survey.

The BLS primarily uses the CE data to measure changes in the buying habits of the population. The information is used to periodically update the market basket of consumer goods and services upon which the Consumer Price Index is based.

In addition to the uses of the data by the BLS, other government and private agencies and individuals have also used the data extensively. The Survey data on the income, expenditures, assets, and liabilities of American families have been of great interest to market researchers, industry officials, and other private users (e.g., individuals associated with research institutes and universities). These groups have used the data to study the welfare of particular segments of the population and the effects of policy changes on spending patterns of various socioeconomic groups, to construct economic models, and to analyze the demand for groups of goods and services. Public-use computer tapes are available to meet the needs of these groups and individuals.

The most recent CE data available for public use were collected in 1980-81. Public-use computer tapes of the 1980-81 CE Diary data are currently available. Selected expenditure and income data from the Diary component of the CE are presented in Bulletin 2173, Consumer Expenditure Survey: Diary Survey, 1980-81. A news release of the 1980-81 Interview data was produced by BLS in December 1984. A bulletin and public-use computer tapes of the Interview Panel Survey data are forthcoming.

CONCLUSIONS

The CE panel session was designed to provide an opportunity for users, providers, and other interested individuals to share their ideas regarding data access, uses, and needs. In this paper, an overview of the Survey was presented as a basis for the session. Such exchanges will: (1) lead to improvements in the quality of the CE data and public-use computer tapes, (2) promote working relationships among users and between users and the BLS, and (3) stimulate ideas for future exchanges.

Publications of the Consumer Expenditure Survey

A list of previous publications containing data from the Consumer Expenditure Survey program appears below. Bulletins may be purchased from: BLS regional offices; the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402; or for selected publications, on microfiche or paper copy from the National Technical Information Service (NTIS), U.S. Department of Commerce, Springfield, Virginia 22161.

Title, number, and date of publication	Coverage
Consumer Expenditure Survey:	
Interview Survey, 1980-81, Press Release, December 1984	Family income and expenditures classified by family characteristics, eight tables. Bulletin forthcoming.
Diary Survey, 1980-81, Bulletin 2173 (1983)	Family income and expenditures for food detail and other selected categories classified by family characteristics and region, 27 tables, 69 pages, $4.50.
Integrated Diary and Interview Survey Data, 1972-73, Bulletin 1992 (1978)	Total family expenditures and income classified by family characteristics. Totals also for selected metropolitan areas, 15 tables, 136 pages. NTIS Accession #PB 84244995, paper copy, $14.50; microfiche, $4.50.
Interview Survey 1972-73, Bulletin 1997, Volumes 1 and 2 (1978)	Volume 1 consists of four tables which classify all U.S. families by family income before taxes (income class), family income before taxes (decile class), age of family head, race of family head. Six additional tables cross-classify families by family income before taxes for six family size groupings, 681 pages. NTIS Accession #PB 84231851, paper copy, $47.00; microfiche, $9.50. Volume 2 contains four tables which cross-classify family income before taxes for four geographic regions--Northeast, North Central, South, and West, 321 pages; NTIS Accession #PB 84231869, paper copy, $26.50; microfiche, $4.50.
Interview Survey, 1972-73, Bulletin 1985 (1978)	Family income and expenditures classified by family characteristics, one-way and cross tabulations, 29 tables, 510 pages. NTIS Accession #PB 8513443, paper copy, $37.00; microfiche; $4.50.
Diary Survey, July 1972-June 1974, Bulletin 1959 (1977)	Family income and expenditures for food detail and other selected categories, 129 tables, 33 for total U.S. and 24 for each of four regions, 387 pages; Accession #PB 83169128, paper copy, $29.50; microfiche, $4.50.

Public-Use Computer Tapes

Public-use computer tapes for the Diary are available from the 1980-81 Survey; tapes for the Quarterly Interview Survey are forthcoming. Seven public use tapes are available from the 1972-73 Survey including Diary Survey public-use and food quantity tapes; Quarterly Interview Survey--summary, detailed; Consumer durables; Clothing and household textiles tapes; and an Integrated Survey tape. Information about the tapes is available from the BLS national office.

THE CONSUMER EXPENDITURE SURVEY SERIES: APPLICATIONS IN ACADEMIC RESEARCH

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ABSTRACT

Data from the Bureau of Labor Statistics' Consumer Expenditure Survey series has been used extensively in the analysis of household budgets. Despite methodological and statistical limitations, these data represent a valuable resource for research on expenditures for goods and services.

In consumer expenditure research, the econometric analysis of household budgets frequently involves cross-section data, such as those provided by the Bureau of Labor Statistics (BLS) Consumer Expenditure Survey (CES) series. These data are a major resource for academic research, as demonstrated by the large number of studies using them. Although these data have problems common to all survey data, their scope is wider and their quality superior to expenditure data collected in most major universities. The purposes of this paper are to: 1) review research applications of the BLS expenditure survey data; 2) discuss assets of these data from the perspective of academic research; and 3) suggest approaches to overcoming problems which may be encountered in statistical analysis of these data.

APPLICATIONS

In Engel curve analysis, which is the basis for the study of household budgets, the demand for a commodity is expressed as a function of income. In order to study the effect of income on expenditures, it is necessary to control for the effects of additional socioeconomic and demographic variables, such as family composition or stage in the family life cycle, social class, and location. Historically, the BLS surveys of consumer expenditures and income have been important sources of the comprehensive and detailed information required to perform this type of analysis. Since the 1972-73 CES the surveys have been composed of two parts -- an interview component and a diary component. The interview survey is the component used most frequently in Engel curve analysis, because of the wide range of expenditure categories covered. Research has focused on the relationship of income to expenditures for both commodities and services, as well as on the effects of selected socioeconomic and demographic variables on expenditures. Commodities studied have included food (1,6,11), clothing (1,3,11,19), housing (1,11), transportation (1,4,11), and many others. Services analyzed have included medical care (1,11,) energy (8), child care (2), food away from home (2,5), clothing care (2,18, domestic services (2) and personal care (1,2,11). In addition, researchers have examined the effects of important demographic variables, such as race (14), the employment status of the wife (7), and family life cycle (6,19) on expenditures.

With the introduction of the ongoing survey in 1980-81, there is opportunity to study the impact of demographic changes on expenditures. For example, research might address differences in expenditure patterns between single and married parent families. As the Hispanic population grows, it might be interesting to compare expenditures in that group to those of the rest of the population. The expenditure patterns of the black population deserve further study, as do the expenditure patterns of the elderly.

ASSETS

One purpose of the ongoing consumer expenditure surveys which were intitated in 1979 is to provide a continuous body of detailed expenditure data for research purposes (10). In designing the survey, the BLS has been responsive to the research needs of consumer economists in the academic community, as evidenced by the comprehensive and detailed nature of the data. The unit of analysis, which is the consuming unit, is uniquely suited to Engel curve analysis. Extensive socioeconomic and demographic information is available on each hosehold, so that it is possible to control for the effects of those variables on expenditures. In the 1980-81 survey, households are even coded into family life cycle and family composition variables, sparing the researcher problems associated with defining those concepts and recoding them in a workable manner.

The resources needed to collect data of this breadth and depth are beyond the resources of most major universities. This project has a multimillion dollar budget, which permits the collection of a wide range of quality data from a large (4800 households) sample (15). Data are collected by professionally trained field personnel of the bureau of the Census, and are carefully edited by both the Bureau of the Census and the BLS. The response rate of 84%, although lower than in the 1972-73 survey, is still high (15). While the number of expenditure categories in the ongoing survey has been reduced from almost 2000 to approximately 500, 95% of expenditures by the average household are represented (15). In addition, new product categories, such as personal computers, video cassette recorders, and telephone answering machines are included. All of this information is available on public use tapes at a minimal cost.

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POTENTIAL PROBLEMS AND POSSIBLE SOLUTIONS

Users of the BLS survey data need to be aware of potential problems associated with the survey methodology which may affect statistical analysis. For example, the incidence of incomplete income reporting increased from 6% in the 1972-73 CES to 16% in the 1980-81 survey. This may represent either refusal to respond or lack of information on the part of respondents (15). Inclusion of such cases in the sample used for analysis may lead to bias in the estimate of the income parameter. In comparing the results of expenditure reporting in the 1980-81 survey to Personal Consumption Expenditures (PCE) compiled by the Department of Commerce, there are inconsistencies in some categories (15). One example is apparel. It is also likely that large ticket items, which are easily recalled, continue to be reported more accurately in the interview component, while small ticket items, which are frequently purchased, are reported more accurately in the diary data. The BLS is conducting an ongoing evaluation of the survey methodology, in order to improve the accuracy of responses.

Users of the BLS data need to be conscious of statistical pitfalls associated with small cell sizes and consumption categories with large numbers of zero expenditures. Given the decrease in sample size between 1972-73 and 1980-81, the issue of cell size is of particular concern, if the effects of demographic variables like race, location, and stage in the family life cycle are to be analyzed. Using the 1973 data, Wagner and Hanna (19) found that there were certain family life cycle categories which had to be collapsed because of small cell sizes. Researchers can expect to find large numbers of zero expenditures in many consumption categories, particularly where products are defined narrowly, or purchases are made infrequently. Much Engel curve analysis involves ordinary least squares (OLS) regression. Where there are large numbers of zero expenditures in a consumption category, the assumptions of OLS regression are violated. The appropriate method of anaysis is then Tobit regression (16), as demonstrated with the 1972-73 CES data by Foster, Abdel-Ghany, and Ferguson (7), in an analysis of the effect of the wife's employment on expenditures for appliances, education, recreation, and vacations. Another analytical approach, appropriate when the dependent variable is dichotomous, is binomial logit (9). Binomial logit was applied to the purchase of small cars by Dardis and Hrozencik (4), using the 1972-73 CES data.

Although the 1980-81 survey is the first of an ongoing series of surveys, designed to provide continuous information on expenditure patterns, this is not a longitudinal study, as suggested by Upah and Sudman (17). In the interview component, households participate for five consecutive quarters. Twenty percent are rotated in and out every quarter (14). Eventually, enough data points may be available for time series analyses of expenditures in selected categories of goods and services. For example, it would be interesting to analyze expenditures for home computers over time.

The BLS data would be enriched by the inclusion of additional information. For example, Pearl (13) suggested extending the amount of inventory information. Information on stocks of large ticket or infrequently purchased items, such as home furnishings, small appliances, and other durables would be useful. Data on inventories of large-ticket apparel items such as suits and coats would be helpful in analyzing the demand for clothing. Data on price would also be useful. This information was collected for clothing in the 1972-73 survey and might be extended to other products and services.

The use of the BLS data requires sophisticated programming skills and a large computer account. Compiling the data is an imposing task for all but the most experienced programmer. The regression programs necessary to analyze such a large amount of data require a great deal of computer time and are very expensive to run. Once the data has been compiled in a format compatible with the host installation, it lends itself easily to analysis using packages like SAS and SPSS.

Despite problems encountered with methodology and statistical analysis, the BLS survey data has been, and will continue to be, used extensively in academic research. The size and scope of the survey, as well as the quality of the data collected, are an important contribution to both research and education in consumer economics.

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CONSUMER EXPENDITURE
SURVEY DATA AND THE ESTIMATION OF ECONOMIC LOSS

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ABSTRACT

This paper reviews the strengths and shortcomings of Consumer Expenditure Survey (CES) data utilized by economists in projecting the value of a (lost) human life.

This paper is intended to present an important application of BLS Consumer Expenditure Survey Data. The application is to the estimation of the economic value of a human life, or more specifically to the residual economic loss for the survivors of a deceased person who was contributing economic value to the household before death. Such estimates are of importance to courts across the country and the world, in such cases as the Bhopal, India, tragedy; the Three Mile Island episode; and thousands of less publicized cases of personal injury and alleged wrongful death.

A sample case of Ms. Jane Doe is presented to show, in the most simplistic form, how estimates of the present value of a lost human life are carried forward. It is assumed that Ms. Doe was killed on January 1, 1985, the day of her thirtieth birthday; that she was married with two children, ages three and six; that her annual wage income was $15,000; that the annual wage income of her husband was $20,000; that total wage income would have been $35,000 in 1985; that Ms. Doe's real wages (after deducting inflation) will grow by an historical rate of 2 percent annually; that future earning capacity can be discounted to present values at almost a 2 percent real rate of interest; that employer contributions for her fringe benefits equaled 20 percent of her wage earnings; and that Ms. Doe's personal consumption expenditures were 26.40 percent of total family income, or 61.60 percent of her own annual wage income. With these assumptions, the present value of economic loss for Ms. Doe's family is the addition Tables 1 and 2, or $292,485.

Most, but not all, legal jurisdictions realize that Ms. Doe would have spent some portion of total family income exclusively on herself. These relevant expenditures include money spent for her food and clothing, as examples, but not for items which the survivors must still utilize, such as the family income. The family only loses the net of what Ms. Doe would have earned in wages less her personal consumption expenditures.

Unfortunately, we cannot use Consumer Expenditure Survey (CES) data, for either two-earner units or two-or-more-person households, to determine Ms. Doe's relevant personal consumption as a percentage of income. The CES data do not allow a determination of how much she will spend out of total family income exclusively on herself.

Rather, we must turn to a study conducted on California households by Profesor Earl Cheit in the late fifties.[2] This study shows the relevant spending of either of two adults in a family as a percentage of total family income. The percentage ranges from 18 to 30 percent, depending upon the age of the adults, the number of dependent children, and the age of the children. Applying the Cheit data to our sample case, Ms. Doe would have spent 26.4 percent of total family income exclusively on herself had she lived. This translates to her spending 61.6 percent of her own wage income exclusively on herself; only 39.4 percent of her wage earning could possibly have been used by other family members. Thus, the personal consumption deductions in Table 3 are 61.6 percent of the projected wage earnings in each year and add up to a total deduction of $150,142. It can clearly be seen in Table 4 that personal consumption is a very significant variable in the final estimation of $142,343 as the present value of net loss to the survivors of Jane Doe.

The point is that we need more current, reliable data to use in determining the amount of these personal consumption deductions from wage income. It would be very helpful if Consumer Expenditure Survey data could include the spending of each adult family member, rather than only showing the spending of the entire family unit.

When estimating lost earning capacity in the death of single persons, the Cheit study is not useful. Professor Cheit only focused upon two-adult households. The 1980-81 interview data in the Consumer Expenditure Survey are useful here because spending and before tax income[3] are shown for one-person units.

In this latest study, such single persons spend approximately 88 to 98 percent of their income, depending upon the definition of "spending" utilized. Therefore, the residual economic loss to such survivors as parents and siblings could be so low that, in many jurisdictions, the net loss of earning capacity would not be projected. Economic losses might accrue in lost household services or the lost value of companionship, but the deceased would have little net value to survivors in his or her role as an "economic machine."

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[2] Earl F. Cheit. Injury and Recovery in the Course of Employment (New York: John Wiley and Sons, 1961).

[3] In most jurisdictions, the effects of federal income taxes cannot be considered, so that before-tax wages are projected and personal consumption is deducted from these before-tax wages.

On the other hand, some state jurisdictions appear not to require the deduction from wage earnings of what the deceased would have spent on himself. Rather, what must be deducted is a subsistence level of consumption that would have kept the deceased in sufficient health to earn a living. Under such a subsistence theory, the personal consumption deduction would be a much lower percentage of wage income for both single and married persons. An economist can use CES data for spending categories more related to subsistence, along with data on poverty level incomes.

A final point concerning Consumer Expenditure Survey data is primarily relevant to single persons without children. The Consumer Expenditure Survey provides data on spending by such a single person but not necessarily the spending for the benefit of this person exclusively. Some part of spending on food, entertainment, contributions, miscellaneous, and perhaps even of transportation and shelter, may be spent for the needs of a parent or sibling who survives the death. If a special study is ever conducted to ferret out this possibility, personal consumption deductions out of wage income would be somewhat lower.

In summary, Consumer Expenditure Survey data meet some, but not all, of the needs of users who make economic loss projections. Additional, disaggregated data might significantly improve the accuracy of such projections.

Table 1. Present Value of Expected Wages, 1985 - 2024

YEAR	AGE	WAGES	DISCOUNT FACTOR	PRESENT VALUE	PROB LPE	EXPECTED VALUE	CUMULATE
****	***	*******	********	*******	******	********	********
1985	30	$15,000	1.0000	$15,000	0.4793	$7,190	$7,190
1986	31	15,300	0.9796	14,988	0.4789	7,178	14,368
1987	32	15,606	0.9503	14,830	0.4786	7,098	21,466
1988	33	15,918	0.9184	14,619	0.4782	6,991	28,457
1989	34	16,236	0.9012	14,632	0.4778	6,991	35,448
1990	35	16,561	0.8843	14,645	0.5190	7,601	43,049
1991	36	16,892	0.8677	14,657	0.5185	7,600	50,649
1992	37	17,230	0.8515	14,671	0.5180	7,600	58,249
1993	38	17,575	0.8355	14,684	0.5173	7,596	65,845
1994	39	17,927	0.8198	14,697	0.5167	7,594	73,439
1995	40	18,286	0.8045	14,711	0.5159	7,589	81,028
1996	41	18,652	0.7894	14,724	0.5150	7,583	88,611
1997	42	19,025	0.7746	14,737	0.5141	7,576	96,187
1998	43	19,406	0.7601	14,751	0.5130	7,567	103,754
1999	44	19,794	0.7458	14,762	0.5118	7,555	111,309
2000	45	20,190	0.7319	14,777	0.5092	7,524	118,833
2001	46	20,594	0.7181	14,789	0.5078	7,510	126,343
2002	47	21,006	0.7047	14,803	0.5062	7,493	133,836
2003	48	21,426	0.6915	14,816	0.5045	7,475	141,311
2004	49	21,855	0.6785	14,829	0.5027	7,455	148,766
2005	50	22,292	0.6658	14,842	0.5007	7,431	156,197
2006	51	22,738	0.6533	14,855	0.4985	7,405	163,602
2007	52	23,193	0.6411	14,869	0.4962	7,378	170,980
2008	53	23,657	0.6291	14,883	0.4936	7,346	178,326
2009	54	24,130	0.6173	14,895	0.4909	7,312	185,638
2010	55	24,613	0.6057	14,908	0.3695	5,509	191,147
2011	56	25,105	0.5944	14,922	0.3672	5,479	196,626
2012	57	25,607	0.5832	14,934	0.3646	5,445	202,071
2013	58	26,119	0.5723	14,948	0.3618	5,408	207,479
2014	59	26,641	0.5616	14,962	0.3586	5,365	212,844
2015	60	27,174	0.5510	14,973	0.3552	5,318	218,162
2016	61	27,717	0.5407	14,987	0.3515	5,268	223,430
2017	62	28,271	0.5306	15,001	0.3474	5,211	228,641
2018	63	28,836	0.5206	15,012	0.3431	5,151	233,792
2019	64	29,413	0.5109	15,027	0.3387	5,090	238,882
2020	65	30,001	0.5013	15,040	0.0672	1,011	239,893
2021	66	30,601	0.4919	15,053	0.0658	990	240,883
2022	67	31,213	0.4827	15,067	0.0645	972	241,855
2023	68	31,837	0.4736	15,078	0.0631	951	242,806
2024	69	32,474	0.4648	15,094	0.0618	933	$243,739

JANE DOE $243,739

Table 2. Present Value of Expected Supplemental Income, 1985 - 2024.

YEAR ****	AGE ***	BENEFITS ********	DISCOUNT FACTOR ********	PRESENT VALUE *******	PROB LPE ******	EXPECTED VALUE ********	CUMULATE ********
1985	30	$3,000	1.0000	$3,000	0.4793	$1,438	$1,438
1986	31	3,060	0.9796	2,998	0.4789	1,436	2,874
1987	32	3,121	0.9503	2,966	0.4786	1,420	4,294
1988	33	3,184	0.9184	2,924	0.4782	1,398	5,692
1989	34	3,247	0.9012	2,926	0.4778	1,398	7,090
1990	35	3,312	0.8843	2,929	0.5190	1,520	8,610
1991	36	3,378	0.8677	2,931	0.5185	1,520	10,130
1992	37	3,446	0.8515	2,934	0.5180	1,520	11,650
1993	38	3,515	0.8355	2,937	0.5173	1,519	13,169
1994	39	3,585	0.8198	2,939	0.5167	1,519	14,688
1995	40	3,657	0.8045	2,942	0.5159	1,518	16,206
1996	41	3,730	0.7894	2,944	0.5150	1,516	17,722
1997	42	3,805	0.7746	2,947	0.5141	1,515	19,237
1998	43	3,881	0.7601	2,950	0.5130	1,513	20,750
1999	44	3,959	0.7458	2,953	0.5118	1,511	22,261
2000	45	4,038	0.7319	2,955	0.5092	1,505	23,766
2001	46	4,119	0.7181	2,958	0.5078	1,502	25,268
2002	47	4,201	0.7047	2,960	0.5062	1,498	26,766
2003	48	4,285	0.6915	2,963	0.5045	1,495	28,261
2004	49	4,371	0.6785	2,966	0.5027	1,491	29,752
2005	50	4,458	0.6658	2,968	0.5007	1,486	31,238
2006	51	4,548	0.6533	2,971	0.4985	1,481	32,719
2007	52	4,639	0.6411	2,974	0.4962	1,476	34,195
2008	53	4,731	0.6291	2,976	0.4936	1,469	35,664
2009	54	4,826	0.6173	2,979	0.4909	1,462	37,126
2010	55	4,923	0.6057	2,982	0.3695	1,102	38,228
2011	56	5,021	0.5944	2,984	0.3672	1,096	39,324
2012	57	5,121	0.5832	2,987	0.3646	1,089	40,413
2013	58	5,224	0.5723	2,990	0.3618	1,082	41,495
2014	59	5,328	0.5616	2,992	0.3586	1,073	42,568
2015	60	5,435	0.5510	2,995	0.3552	1,064	43,632
2016	61	5,543	0.5407	2,997	0.3515	1,053	44,685
2017	62	5,654	0.5306	3,000	0.3474	1,042	45,727
2018	63	5,767	0.5206	3,002	0.3431	1,030	46,757
2019	64	5,883	0.5109	3,006	0.3387	1,018	47,775
2020	65	6,000	0.5013	3,008	0.0672	202	47,977
2021	66	6,120	0.4919	3,010	0.0658	198	48,175
2022	67	6,243	0.4827	3,013	0.0645	194	48,369
2023	68	6,367	0.4736	3,015	0.0631	190	48,559
2024	69	6,495	0.4648	3,019	0.0618	187	$48,746

JANE DOE $48,746

Table 3. Present Value of Personal Consumption 1985-2024

YEAR	AGE	PERSONAL CONSUMPTION	DISCOUNT FACTOR	PRESENT VALUE	PROB LPE	EXPECTED VALUE	CUMULATE
1985	30	-$9,240	1.0000	-$9,240	0.4793	-$4,429	-$4,429
1986	31	-9,425	0.9796	-9,233	0.4789	-4,422	-8,851
1987	32	-9,613	0.9503	-9,135	0.4786	-4,372	-13,223
1988	33	-9,805	0.9184	-9,005	0.4782	-4,306	-17,529
1989	34	-10,001	0.9012	-9,013	0.4778	-4,306	-21,835
1990	35	-10,202	0.8843	-9,022	0.5190	-4,682	-26,517
1991	36	-10,405	0.8677	-9,028	0.5185	-4,681	-31,198
1992	37	-10,614	0.8515	-9,038	0.5180	-4,682	-35,880
1993	38	-10,826	0.8355	-9,045	0.5173	-4,679	-40,559
1994	39	-11,043	0.8198	-9,053	0.5167	-4,678	-45,237
1995	40	-11,264	0.8045	-9,062	0.5159	-4,675	-49,912
1996	41	-11,490	0.7894	-9,070	0.5150	-4,671	-54,583
1997	42	-11,719	0.7746	-9,078	0.5141	-4,667	-59,250
1998	43	-11,954	0.7601	-9,086	0.5130	-4,661	-63,911
1999	44	-12,193	0.7458	-9,094	0.5118	-4,654	-68,565
2000	45	-12,437	0.7319	-9,103	0.5092	-4,635	-73,200
2001	46	-12,686	0.7181	-9,110	0.5078	-4,626	-77,826
2002	47	-12,940	0.7047	-9,119	0.5062	-4,616	-82,442
2003	48	-13,198	0.6915	-9,126	0.5045	-4,604	-87,046
2004	49	-13,463	0.6785	-9,135	0.5027	-4,592	-91,638
2005	50	-13,732	0.6658	-9,143	0.5007	-4,578	-96,216
2006	51	-14,007	0.6533	-9,151	0.4985	-4,562	-100,778
2007	52	-14,287	0.6411	-9,159	0.4962	-4,545	-105,323
2008	53	-14,573	0.6291	-9,168	0.4936	-4,525	-109,848
2009	54	-14,864	0.6173	-9,176	0.4909	-4,504	-114,352
2010	55	-15,162	0.6057	-9,184	0.3695	-3,393	-117,745
2011	56	-15,465	0.5944	-9,192	0.3672	-3,375	-121,120
2012	57	-15,774	0.5832	-9,199	0.3646	-3,354	-124,474
2013	58	-16,089	0.5723	-9,208	0.3618	-3,331	-127,805
2014	59	-16,411	0.5616	-9,216	0.3586	-3,305	-131,110
2015	60	-16,739	0.5510	-9,223	0.3552	-3,276	-134,386
2016	61	-17,074	0.5407	-9,232	0.3515	-3,245	-137,631
2017	62	-17,415	0.5306	-9,240	0.3474	-3,210	-140,841
2018	63	-17,763	0.5206	-9,247	0.3431	-3,173	-144,014
2019	64	-18,118	0.5109	-9,256	0.3387	-3,135	-147,149
2020	65	-18,481	0.5013	-9,265	0.0672	-623	-147,772
2021	66	-18,850	0.4919	-9,272	0.0658	-610	-148,382
2022	67	-19,227	0.4827	-9,281	0.0645	-599	-148,981
2023	68	-19,612	0.4736	-9,288	0.0631	-586	-149,567
2024	69	-20,004	0.4648	-9,298	0.0618	-575	-$150,142

JANE DOE -$150,142

Table 4. Present Value of Expected Economic Loss 1985 - 2024

YEAR	AGE	WAGES	BENEFITS	PERSONAL CONSUMPTION	TOTAL	CUMULATE
****	***	******	********	************	*******	***********
1985	30	$7,190	$1,438	-$4,429	$4,199	$4,199
1986	31	7,178	1,436	-4,422	4,192	8,391
1987	32	7,098	1,420	-4,372	4,146	12,537
1988	33	6,991	1,398	-4,306	4,083	16,620
1989	34	6,991	1,398	-4,306	4,083	20,703
1990	35	7,601	1,520	-4,682	4,439	25,142
1991	36	7,600	1,520	-4,681	4,439	29,581
1992	37	7,600	1,520	-4,682	4,438	34,019
1993	38	7,596	1,519	-4,679	4,436	38,455
1994	39	7,594	1,519	-4,678	4,435	42,890
1995	40	7,589	1,518	-4,675	4,432	47,322
1996	41	7,583	1,516	-4,671	4,428	51,750
1997	42	7,576	1,515	-4,667	4,424	56,174
1998	43	7,567	1,513	-4,661	4,419	60,593
1999	44	7,555	1,511	-4,654	4,412	65,005
2000	45	7,524	1,505	-4,635	4,394	69,399
2001	46	7,510	1,502	-4,626	4,386	73,785
2002	47	7,493	1,498	-4,616	4,375	78,160
2003	48	7,475	1,495	-4,604	4,366	82,526
2004	49	7,455	1,491	-4,592	4,354	86,880
2005	50	7,431	1,486	-4,578	4,339	91,219
2006	51	7,405	1,481	-4,562	4,324	95,543
2007	52	7,378	1,476	-4,545	4,309	99,852
2008	53	7,346	1,469	-4,525	4,290	104,142
2009	54	7,312	1,462	-4,504	4,270	108,412
2010	55	5,509	1,102	-3,393	3,218	111,630
2011	56	5,479	1,096	-3,375	3,200	114,830
2012	57	5,445	1,089	-3,354	3,180	118,010
2013	58	5,408	1,082	-3,331	3,159	121,169
2014	59	5,365	1,073	-3,305	3,133	124,302
2015	60	5,318	1,064	-3,276	3,106	127,408
2016	61	5,268	1,053	-3,245	3,076	130,484
2017	62	5,211	1,042	-3,210	3,043	133,527
2018	63	5,151	1,030	-3,173	3,008	136,535
2019	64	5,090	1,018	-3,135	2,973	139,508
2020	65	1,011	202	-623	590	140,098
2021	66	990	198	-610	578	140,476
2022	67	972	194	-599	567	141,243
2023	68	951	190	-586	555	141,798
2024	69	933	187	-575	545	$142,343
TOTAL		$243,739	$48,746	-$150,142	$142,343	

CONSUMER EXPENDITURE (CE) SURVEY DATA:
CONSUMER RESEARCH AND MARKETING IMPLICATIONS

Mark W. Cunningham, Burke Marketing Research--Dallas, Texas[1]

ABSTRACT

Survey researchers, brand managers, and those charged with the introduction of new products, can each make unique, if limited, use of the Consumer Expenditure (CE) published and tape-retrievable data. This paper overviews some of these applications, meanwhile pointing out unavoidable shortcomings for these particular users.

ABOUT BURKE MARKETING RESEARCH

Burke Marketing Research, founded in 1931, is the Country's largest provider of custom survey marketing research services, with a clientele which annually numbers about 250 prominent manufacturers, advertisers and advertising agencies. Reflecting general spending patterns across the research industry, the Burke client base is heavily weighted toward marketers of advertised packaged goods to consumers, with relatively light spending for research among the manufacturers of durables or commodities.

RESEARCH PLANNING APPLICATIONS OF THE CE DATA

The Consumer Expenditure data represent a wealth of useful information, albeit of different appeal and utility depending on the using audience. As survey researchers, we see applications of the data which are beneficial to us during the set-up or pre-execution stages of a job. For example, patterns of consumer spending which vary by geography or demographic sub-group may enable us to focus our data collection efforts in only those parts of the Country where spending is heaviest in the category of interest, or else screen up front for the demographic which is also likely to be enriched with users of a particular category of interest to us and our client.

BENCHMARK OR REFERENCE VALUE

Besides being useful in the research planning process, the CE data can be used to calibrate or adjust expenditure data which have been gathered under other, less rigorous sampling conditions using other data collection methods. For instance, the AdTel Division of Burke Marketing Services provides household expenditure information using cooperating diary and scanner panels in selected U.S. cities, such as Evansville, Indiana and Orlando, Florida. Along with the expenditure information is gathered demographic data on the reporting households. Given the stringent sampling and weighting pains which we know have been taken in securing the CE data, we should legitimately be able to use them as a means of calibrating our own expenditure data obtained under our own sampling conditions.

The Burke household expenditure data are usually projected nationally, based on behaviour which is observed in the test markets and known characteristics of those markets as they compare to national norms. It would behoove us as researchers if, upon discovering a significant data mismatch between our own projections vis-a-vis the CE data, to explore the reasons behind such occurrences. As an example, if we found that a crosstabulation based on income showed that upper income households were reporting significantly higher or lower per household average spending in the tobacco products category compared to the CE data, we would examine our circumstances and methods for anomalies that could account for such an over- or under-projection. If no problems were discovered at our end, we would feel further obligated to report these findings to the provider of the CE data, in the spirit of ultimately strengthening and further legitimizing the projectability of the CE data themselves.

Shortcomings of diary data; potential bias sources

Some cautionary notes are in order as one considers applying the CE data to the calibration of other diary-retrieved expenditure data. We know from our experience in the panel business that the absolute reliability of these data must always be questioned. Sources of recognized bias come from the misrecording of information by the panelists, from memory lapses, from lack of motivation to complete diaries faithfully or accurately based on perceived low incentives for cooperation, and other sources. There is, of course, no comforting law of large numbers to fall back upon when one looks at individual household spending behavior, or when one considers small numbers of similarly-behaving households, as we do when studying brand or category-switching patterns.

SHORTCOMINGS FOR THE RESEARCHER

Inability to Use as a Sample Frame

Ideally, the survey marketing researcher would hope to use the CE data base as a starting point for follow-on research among the very same households who meet given usage qualifications, demographic criteria, or some combination of conditions desired by client management.

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[1] Vice President/Mgr. Client Service Office

Individual responding household units are wisely protected from follow-on research intrusions when they complete the CE data retrieval instruments. Ideally, we would be able to pre-condition the CE data tape to isolate only those households meeting expenditure or demographic criteria, in order to enable us to go into those households with a custom survey instrument of interest to our client. A typical case might be to only talk to heavy tobacco spending households, screening for menthol cigarette users, then following with an invitation to participate in a product placement and home use test on a new cigarette prototype. Again, this cannot be done, and for good reason. Actually, there are sample frames available to Burke and other marketing research companies which satisfy this purpose and which include pre-cooperating households.

Absence of Published Incidence Information

Another shortcoming in the CE data grows from the fact that only expenditure category averages are published, not incidences of occurrence of spending of any amount across all the reporting households or any demographic or geographic sub-group derived therefrom. Were such incidence information published, it would be invaluable to the researcher who was deciding the most appropriate data collection method to use on a survey, as well as the cost of a study. Incidence determines the ease or difficulty we face in seeking qualified persons in the population at large. Incidences which tend to be high suggest that in-person data collection methods, such as door-to-door or mall intercept may be feasible, since the non-productive costs of passing over non-qualifieds are tolerable as a proportion of the total research cost. Low incidence driven studies, on the other hand, almost invariably necessitate the use of telephone or mailout research designs, where the high proportion of non-qualifieds that must be passed over would become cost or timing prohibitive under the slower data collection techniques. Sometimes, of course, the needs of the research require that respondents see or otherwise physically experience the research stimulus, as in an advertising concept reaction or product taste test, or else the task itself, such as completing a week-long television viewing or grocery shopping log, makes a one-call/all-telephone approach impossible. In these cases, if the low incidence of qualifieds makes one of the in-person methods such as door-to-door impossibly expensive, then hybrid telephone recruitment/mailout designs become methods of choice. These decisions, as noted earlier, hinge on incidence information which is not published in the CE data, though is theoretically obtainable by passing over some or all of the data tape for appropriate expenditure occurrences to be noted. We do not feel, however, that this would be a very efficient and productive use of the tape, so view it as a shortcoming for our unique needs.

Absence of Brand Information

Brand information is not reported in the CE data. For both researchers and product managers, this is a weakness, since virtually all of the packaged goods research that we do and all of the competitive responding that is engaged in by marketers is tied to brands. Even the CE expenditure categories are extremely broadly defined, which limits their usefulness in general to the marketer. Examples of this non-actionable breadth of definition might include the "food away from home" category, where our typical quest might center on the restaurant sub-categories involved, whether fast food or otherwise. Another example might have to do with "tobacco products" expenditures, where our typical need would be to deal with cigarette spending at the very least, and more likely finer definition such as menthol flavored cigarettes. Of course, manipulation of the CE data tape may yield some of this normally unpublished information.

Mix of Survey Research Expenditures

The preponderance of our clientele consists of branded packaged goods manufacturers, with a much smaller percentage of clients either in services or durables. This is probably not [illegible] unfair representation of the weight of spending that takes place nationally in survey marketing research. While packaged goods categories are certainly represented within the CE data base, there is also a lot of emphasis upon non-branded spending categories, such as commodities and utilities. This is, of course, realistic, given the way households actually spend their income, though these are categories which see disproportionately little marketing effort or spending, hence they are lightly researched by comparison to the heavily advertised packaged goods categories.

Comments Regarding Data Weighting

As practicing survey researchers, we cannot fault the sampling pains that have been taken to produce the Consumer Expenditure data. We also know that complex weighting procedures have been passed over these data. From experience, we know that whenever data have been weighted, satistical analysis procedures become more complex compared to their unweighted data equivalents. For most marketing decision purposes, provided the analyst and decision maker recognize the possibility for bias in the unweighted results, we do not find it necessary to re-cast the data on a weighted basis. On the other hand, we see it as necessary that the CE data be as projectable as possible, thus the requirement that they be weighted.

BRAND MANAGEMENT AND PRODUCT PLANNING

Beyond survey research applications, marketers involved in brand management and especially new product planning ought to be able to make productive use of the CE data.

New Product Opportunism

For example, those charged with the responsibility for spotting new product opportunities or niches can examine the CE data over the course of time, looking for rising expenditure trends or patterns. If and as these are spotted, then new product entries in the appropriate spending categories make more sense than if the relevant trends are downward. The CE data should not be looked at in isolation, of course, as rising trends may be classifiable as short-lived upon closer examination or may be so well known in general -- as in spending for food away from the home -- that they give rise to a risky, crowded, over-abundance of new entry responses.

The product planner can take the CE data and decompose it by crosstabulating on the basis of demographic sub-groups. This process might, for instance, show rising or disproportionate trends only within certain demographic categories,which would enable a more finely-tuned or targeted marketing response.

Media Planning

Brand managers in packaged goods settings often have partial responsibility for planning the media which is used to support the advertising for their brands. By conditioning the data by crosstabulating so that demographic variables are predictors of expenditure categories, media planners can target thier efforts on a national scale by buying only those media, such as television programming, which are enriched with the demographic segments who are more into the categories of interest.

Test Market Decisions

At some point in the new product introduction process, it becomes necessary to declare markets or regions for the initial rollout stages of the prototype product which has successfully passed muster through a number of preliminary research screens -- concept evaluations, limited home-use testing in the case of packaged goods, the pre-testing of advertising copy, and so on. The geographic specificity of the CE data may be useful in steering this decision by pointing toward regions where average or above average per-household spending in the product category already exists. These would also be areas where advertising could be expected to produce more efficient results; low-penetration sections of the Country for given expenditure categories would, conversely, be places to avoid for a product or advertising introduction.

Concluding Comments

The CE data have a useful role to play for a variety of users in academic, government, and commercial settings. Marketers, in particular, have probably not made as much use of this resource as its potential suggests. Perhaps as awareness of the data are broadcast among the community of marketing practitioners, these applications of an existing, low cost data resource will increase.

SOME THOUGHTS ON THE CONSUMER RESEARCHER'S USE OF THE CONSUMER EXPENDITURE SURVEY[1]

E. Scott Maynes, Cornell University

ABSTRACT

This paper takes the viewpoint of the consumer researcher and discusses the advantages and disadvantages of the Consumer Expenditures Survey as a data base for consumer research versus alternative sources such as (1) your own survey, (2) the Survey of Consumer Finances, and (3) the Panel Study of Income Dynamics. The paper urges consumer researchers to balance their understanding and use of econometric and statistical techniques with an equal understanding of the survey data they massage. Finally, the paper argues for the use of group means as an analytical tool for hypothesis testing with CES. Group means enable the analyst to satisfy several important theoretical and statistical requirements while also making it possible for the user to combine data from both the CES Diary Survey and the CES Interview Survey.

To claim your attention on this topic, I should quality myself. Prior to becoming a consumer economist, I spent a half a career in survey research. From 1949 to 1956 I was a member of the team at the Survey Research Center of the University of Michigan that conducted the Surveys of Consumer Finances for the Federal Reserve Board, finally directing the 1956 Survey. This was followed by a stint in India in 1958-59 where I organized and directed the Delhi Savings Survey. In 1962-63, as Consultant to the Statistical Research Division of the Bureau of the Census, I organized and directed the Validation Survey that was carried out in connection with the 1963 Survey of Financial Characteristics of Consumers. From 1965 to 1978 or so I was a member of the National Advisory Board for the Economic Behavior Program of the Survey Research Center. Over my entire career, I have been an inveterate "consumer" of survey data and publisher of analyses of data from various surveys. So it is from these vantage points that I comment on the 1980-81 Consumer Expenditure Survey (hereafter, CES).

SURVEY RESEARCH: DESIGNING YOUR OWN VS. USING SOMEONE ELSE'S

The supreme merit of doing your own survey is that you can tailor every aspect of the survey design to your research needs: the concepts, the exact wording of questions, the sample size and design, the method of data collection, the reference period, the response unit, the unit of analysis, the coding categories, the organization of the data file, the method of data collection.

This is exactly what the BLS and the Bureau of the Census have done in the case of CES. The objectives of the Survey--in the words of BLS--are "(1) to provide the basis for revising the weights and associated pricing samples for the Consumer Price Index and (2) to meet the need for timely and detailed information on consumption patterns of different kinds of families" [6, p. 41]. All of the technical knowledge of the Bureau of the Census--one of the world's premiere survey organizations--and all of the savvy of the Bureau of Labor Statistics--one of the world's most experienced users of statistical data--are bent toward these ends. This applies to all the choices of technique incorporated in this survey--reporting unit; the separate use of Diary and Interview Panel Surveys to collect different kinds of expenditure data; bounding; rotating samples, the sample size, and other aspects of sample design; the reviewing, editing, and imputation procedures; weighting. As a potential user, however, you should be aware that BLS's goals may not be yours, and hence the data may not fit your analytical needs.

The great advantage of CES to the would-be user is low-cost access to the best quality data of its sort that money can buy. It is not costless: you will have to invest many hours in the mastery of the survey so that you will understand its concepts, procedures, its data tapes and use them efficiently and appropriately. The core question will be whether the adaptation of CES to your research questions will be successful. "Success" means that reviewers and consumers of your analysis find it convincing. It is not enough that they be impressed by the cleverness embodied in your proxies, approximations, and assumptions!

Before starting with CES, you should ask whether your research questions would be better addressed and answered by a survey of your own design and execution. Here the costs are evident: data collection is costly, tedious, and time-consuming. It may require that you master survey research methodology--a time-consuming task that, however, will repay itself many times over in an academic career. The gain from "your own" survey is obvious: a research enterprise that is entirely geared to answering your questions, one that should be convincing.

ALTERNATIVE DATA SOURCES: CES VS. SCF VS. PSID

Besides CES, there are two major national surveys in the public domain of which scholars in the consumer economics field should be aware. The first is the Survey of Consumer Finances, the most recent of an ancient and historical series that was "resurrected" in 1983 after a lapse of almost a decade [4]. In contrast to CES, SCF focuses heavily on the finances of the household, its assets, its debts, its pension rights, its major expenditures, the income that supports these and attitudes towards credit and financial instruments. It is conducted annually by the Survey Research Center for a consortium of government agencies headed by the Federal Reserve. Its sample size is about 3,700 families and is freshly drawn each year. Questionnaires, codes, and data tapes may be obtained from:

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[1] Professor, Department of Consumer Economics and Housing.

Mr. Robert Chamberlin
Board of Governors of
the Federal Reserve System
Washington, D.C. 20551

A second alternative source is the Survey Research Center's Panel Study of Income Dynamics (PSID). Starting with a cross-section of U.S. families in 1968, the Survey Research Center has "followed" members of these families, maintaining the representativeness of the sample and taking interviews with each family member from 1968 to the present. The study focuses on factors determining the economic well-being of sample members--their income, labor force participation, time use, and some information on assets. A comprehensive notion of the contents of PSID may be obtained from Greg Duncan's book, Years of Poverty, Years of Plenty [1]. Questionnaires, codes, tapes, and explanations may be obtained by writing to:

Panel Study of Income Dynamics
Economic Behavior Program
Survey Research Center
University of Michigan
Box 1248
Ann Arbor, Michigan 48106

Obviously, a would-be user of CES should pause to ask which of these three surveys would best answer his research questions.

BALANCED SOPHISTICATION

That researchers on consumer problems in this generation should possess a strong command of econometric and statistical techniques goes almost without saying. One notes with satisfaction that the session at this Conference on "Simultaneous Equations Estimation" had 50 to 60 in attendance.

But here I make a plea that researchers match their command of econometrics with an understanding of both the strengths and limitations of survey data. Survey data are necessarily error-filled: the data collected come from the imperfect memories, records, or attitudes of ordinary consumers. One instance may alert you to the scope of the problem. The most ambitious financial survey ever undertaken was the 1963 Survey of Financial Characteristics [5]. It sought to record in copious detail the net worth and other financial characteristics of sample families, especially those at the upper end of the income distribution. The equally ambitious and carefully executed Validation Survey of SFC showed that 25 to 30% of savings accounts--small and large--were not reported![1] This despite intensive efforts to persuade respondents to consult their records. A fatal error? Not if your interest is in change over time and the bias remains constant over time. Not if the analyst is aware of the bias involved. But certainly misleading to the innocent researcher and to the innocent consumer of research results. (I should be careful to note that the non-reporting of savings accounts is not chargeable to CES. But CES will have its own reporting failures of which you and I are as yet unaware.)

How does one obtain an understanding of the strengths and limitations of data reported in a particular survey? I would suggest a simple cautionary procedure. Before ever using data from a survey, try the questionnaire on yourself or on some acquaintance with complex affairs. You should secure a graphic sense of the quality of the data. In the case of CES, take the trouble--and it is considerable trouble--to go through both the questionnaire for the Interview Survey and the completion of the diary for the Diary Survey. You should now have a vivid impression of the possibilities of nonsampling errors which arise, as the BLS Handbook of Methods states from "definitional difficulties, differences in the interpretation of questions, inability or unwillingness of the respondent to provide correct information, mistakes in recording or coding the data obtained, and other errors of collection, response, processing, coverage, estimation for missing data, and interviewer variability" [6].

As to those econometricians who blithely publish estimated standard errors (using survey data) to the nearest .0001, I would "sentence" each of them to the task of providing answers to the questionnaires lying behind each of the surveys they use.

USING CES: DESCRIPTION VS. HYPOTHESIS

For description CES is an admirable instrument. It can be used without modification to answer such questions as: How much does some group--defined by age, sex, education, occupation, labor force status, region, etc. or any combination--spend for some expenditure category--food at home, food in restaurants, tobacco, reading, etc.? How has this changed over time? What is the range of expenditures by some group for some expenditure category? Or--to put Mark Cunningham's market segmentation question--what are the groups in the population who tend to eat out most, or least?

When it comes to testing typical hypotheses regarding consumer behavior, I would like to suggest the use of the means of groups as a likely approach. There are several reasons. First, the preferred income variable is usually long-run or permanent income. This can be approximated by the mean of groups defined by age, education, race, and other determinant. Second, means of expenditures for the same groups can be assumed to be taken as the long-run or permanent consumption for this category on the assumption that transitory expenditures and/or measurement errors sum to zero. Third, if one assumes that measurements errors are normally distributed, then group means may be assumed to be (relatively) devoid of measurement errors and hence as proper inputs for standard regression models. Fourth, one can use the data from (1) the Diary Survey, (2) the 1980-81 Interview Survey, and (3) the 1972-73 Survey in the same analysis by utilizing identically defined groups at the very time that the specific units composing each group are not identical.

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[1] See [2] for details regarding the Validation Survey and its results. For a multivariate analysis of causes and correlates of non-reporting, cf. [3].

This use of group means should open up CES to many applications of interests to those of us in ACCI.

SUMMING-UP

My carps and warnings notwithstanding, CES represents a rich source of data which, when used with understanding, should answer many questions of interest to researchers, ACCI members, and consumers in general.

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INTERNATIONAL CONSUMER GUIDELINES

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I am pleased to be with you to discuss important international developments in the consumer movement. In December in Bangkok, I attended the 11th congress of the International Organization of Consumers Unions (IOCU). IOCU, an organization of which ACCI is a member, was founded more than twenty years ago by Colston Warne, whom you also honor. He was joined then by consumer leaders in other countries who saw the growing movement of goods between countries, and the growth of multinational corporations as a powerfully dynamic, really super-national world force. They understood the need to develop countervailing powers that would protect the costumer from the negative aspects of this global market expansion. Since that beginning, IOCU has been an effective force in helping to bring meaningful balance to the marketplace, chiefly through sharing of consumer problems and solutions across international borders.

As early as 1971, an IOCU conference addressed the need to develop consumer guidelines for food and commodities applicable to member states of the UN. Noting the growing awareness of the consumer interest, the UN passed a resolution instructing the Secretariat to report on consumer protection in the member states. That resolution eventually resulted in the drafting of a set of guidelines and their consideration in the Economic and Social Council (ECOSOC). After going through numerous drafts and revisions, the guidelines were finally approved in ECOSOC late last year and are now pending in the General Assembly. Although they are not as strong as we wanted, the guidelines in their present form could be a distinct, positive beginning. Equally important, is passage by the General Assembly of the consolidated list of banned and potentially dangerous pesticides, chemicals, drugs, and consumer products.

Working on these two issues--the consumer guidelines, creating a world charter on consumer rights, and the consolidated list, making information on internationally banned chemicals available to all UN member countries--has constituted my major activities as an IOCU volunteer--serving as representative of this accredited Non-Governmental Organization (NGO) at the UN. As an accredited NGO, IOCU has the right to appear before UN agencies to argue its point of view on UN proposals and to attend and monitor some otherwise closed committee meetings--unless a UN member country objects. I'll let you guess for a bit what country objected to my being present at several meetings lately.

As you all know, our world has indeed become increasingly "global"--economically and socially. The information explosion experienced in our country is a worldwide phenomenon focusing increased attention on global relationships. As international trade has increased in breadth and complexity, the need for international consumer representation is of growing importance. This struck me most vividly at the conference in Bangkok. Here were representatives from almost 50 countries, developed and underdeveloped, that had one strong common demoninator--wanting to be part of the decisions that are being made in corporate board rooms and elsewhere that effect their lives and well-being. The tragedy of Bhopal, which occurrred just before the conference, gave urgency and sadness to our discussions. It permeated the actions of the entire conference. "No more Bhopals," became the cry. And the cry meant far more than just preventing similar tragedies. From the Bhopal tragedy it became clear that consumer concerns are universal. Many nations therefore look to the UN for guidance, leadership, and help in international consumer crises.

The UN may not be the perfect vehicle we hoped it would be for achievement of permanent peace in the world; but it's *there*, it exists, it functions, and it *can* be used to establish principles of decency and justice which all nations can then be persuaded to recognize. And so it is with the consumer guidelines.

One of the things that we need is more consumerists in the diplomatic establishments of the major nations--or at least more active lobbying by each national consumer movement among its own country's diplomats. From my own experience in the consumer movement, I am aware of how much time and effort we have always devoted to lobbying our own politicians and governmental administrators, but we never made our diplomatic corps a target for such efforts. Of course, UN representatives follow their governments' instructions, but we must see to it that our government's instructions to its UN diplomats represent the voice of the people. We just haven't appreciated the role the UN can play in the consumer field, and how important it is for us to make sure our respective national representatives in the UN develop an understanding of consumer issues. Our recent experiences have taught us a good deal about this.

I think of what Eleanor Roosevelt did for humanity when she served as an American representative to, and Chairman of, the UN Commission on Human Rights. She ran into reluctance on the part of career diplomats to make waves and upset relationships between nations over what are often mistakenly regarded as "internal" matters. She established the principle that what happens to the poor, the disadvantaged, the repressed, and persecuted in any country were causes for concern in all countries.

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And so it is with the consumer guidelines. They can serve as a Charter of Human Rights in the consumer area. That doesn't mean that every nation would scrupulously obey and implement those principles. Many would not. But the existence of a UN sponsored Charter of Consumer Rights can simply not be ignored by any nation which wishes to be considered civilized.

Some people think of the UN as strictly a peace-keeping organization, and that it should therefore stay out of social and economic questions. Those people feel that the only justification for the UN's existence is as a kind of "cyclone shelter" to avoid war--some place people can talk instead of fight. Something that is not well understood however, is that the United Nations charter gives the UN a very important role, and I quote, "in achieving international cooperation in solving international problems of an economic, social, cultural, or humanitarian character." These may be some of the very problems which, if left unsolved, could lead to war. While this work of the UN isn't so well known, one-third of the United Nations budget goes to it. The guidelines for consumer protection are encompassed in this economic and social development branch of the United Nations.

In developing coutries, consumers simply don't have the kind of protection we take for granted here. Few of us realize how remarkably good life is for consumers in America, even compared with Britain. In the developing world it's very different. People in undeveloped countries have pitifully less--economically and educationally--and are less able to protect themselves. Improved consumer protection for these people is desparately necessary.

Few of you are old enough to remember the kinds of abuses and unchecked power industrialization brought to the developed world. It meant mass production, modern advertising, and sales methods persuading consumers to buy shoddy, or unneeded, even hazardous products. Some of us are even old enough to remember the Lydia Pinkham days when harmful addictive drugs were sold to women.

As you realize, in developing countries the disparity between consumers and producers is in even greater imbalance. With very limited discretionary income and little formal education people in these countries are being subjected to pressures they cannot be expected to understand. In the marketplace, these consumers face a range of highly sophisticated products designed with a very different consumer in mind. The assumption is mistakenly made by multinationals that these very different consumers are the same; that users in developing countries have the same ability to use a product as do consumers in developed countries. This simply isn't the case. We see, even in our own country, wide disparity in abilities to purchase wisely. That disparity is compounded when merchandisers extend modern American sales practices into other cultures.

Let me remind you of a product introduction in the United States marketplace that illustrates my point. Do you remember the lemon liquid dish soap packaged in bright yellow with a picture of a lemon displayed prominently on its label? This product was mistaken by more than a few consumers to be a lemon food-concentrate. This newly marketed dish soap found its way into more iced tea and lemon drinks than any producer would want to acknowledge.

I'm familiar with a similar case where strawberry shampoo ended up on a consumer's pancakes. It looked like strawberries. . .and it smelled like strawberries. . .However, this particular user did not read English.

My point? U.S. consumers can read, and still misunderstandings or apparent misrepresentations occur. What of the consumers who have even less basis for efficient consumption? What of users who simply don't have the background to make knowledgeable decisions when buying processed foods, beauty aids, and drugs?

John F. Kennedy's historic 1962 Consumer Rights Speech set the course for a great forward movement for protection in the U.S. His consumer bill of rights is celebrated on March 15th throughout the world as Consumer Rights Day. In 1972, the Heads of State of the European Economic Community recognized consumer protection as an international issue when they declared their full support for strengthening and coordinating consumer protection throughout the Community. In 1983, the Council of Europe adopted a consumer protection charter.

These significant strides paralleled and influenced the creation of the proposed UN consumer protection guidelines. The first formal move took place in July, 1981, when the Economic and Social Council, one of the policymaking bodies of the United Nations, asked the Secretary-Counsel, to prepare a report containing guidelines for consumer protection.

The Secretariat's office first prepared a draft based on the recommendations and decisions adopted by various international bodies like the Food and Agriculture Organization and the World Health Organization, and drew on work being undertaken by existing world organizations.

This first draft was then sent to Governments asking for comments. Twenty-three governments replied--including the United States. Some governments approved the draft, and others proposed changes--sometimes merely drafting changes, and sometimes introducing new ideas such as the need to allow for cost/benefit analysis. Not surprisingly, the United States proposed extensive changes to the text.

The guidelines were then reviewed and issued as a working document. In July of 1983, the Secretary-General presented the revised guidelines to the Economics and Social Council. Representatives had an opportunity to comment on the guidelines in May of 1984, and again in July of 1984. In spite of long discussions and meetings both in New York and in Geneva, agreement could not be reached, and it was decided to continue discussions in New York with a view toward their adoption at the 39th UN General Assembly session. Again in late November and early December, further discussions took place.

Finally a consensus was reached on an ad referendum basis. It was agreed that the guidelines would come up for final adoption at the continuing session of the General Assembly in 1985. The request to delay was made by the United States in order to make possible further consultations with the governments and constituents.

The draft guidelines contain a series of principles and measures concerning various aspects of consumer protection. They are based on what have been the main tenets of consumer protection in almost all advanced countries, namely: that products should be safe and not of inferior quality to that which they purport to be; that restrictive business practices which negatively affect consumers' economic interests should be regulated; that consumers are entitled to the information required to make rational choices and to the kind of consumer education necessary to that end; and that there should be effective and speedy redress procedures for legitimate complaints.

The guidelines are divided into three major parts: objectives, general principles, and the guidelines themselves. The guidelines are in turn divided into eight parts, dealing with:

- physical safety;

- protection of consumers' economic interests;

- standards for the safety and quality of consumer goods and services;

- distribution facilities for essential consumer goods and services;

- measures enabling consumer to obtain redress;

- guidelines for measures in the areas of food, water, and pharmaceutical products.

In addition, there is a section on international cooperation in the area of consumer protection due to the fact that certain specific problems in this field can be effectively approached only by international solutions, as in the case, for example, of export of banned hazardous products like Tris, and some pesticides. With respect to transnational corporations, the draft guidelines say that "transnational corporations should conform to national and international standards for consumer protection, including the pertinent provisions of the United Nations system." This was one of the points receiving a great deal of attention from the USSR and unaligned countries.

The guidelines try to take into account the differences between developed and developing countries. For instance, a special section is devoted to food and pharmaceutical products, in view of the fact that a high proportion of consumer income in the developing countries is spent on food and drugs. (I was appalled that the U.S. government suggested the entire section dealing with food, pharmaceuticals, and water quality standards be deleted.)

There is also a special section dealing with distribution facilities for essential goods and services, since poor distribution facilities can cause many consumer problems in some developing countries. Because of the variability in economic and social conditions among developed and developing countries, the implementation of these measures and princples must be assessed in the light of the conditions prevailing in each country. That is why the ECOSOC Secretariat when requesting the elaboration of the guidelines, explicitly stated that "the primary responsibility for consumer protection rests with each State," meaning that the formulation of national consumer protection policies is a prerogative of Governments, and that it is the prerogative of each of them to decide what consumer protection policies it should adopt.

As I see these guidelines, they are at most expressions of support for the kind of consumer protection we in the United States, and consumers in other industrial nations, have been enjoying for decades, indeed for generations. It was not Franklin D. Roosevelt in the 1930's, but his cousin, Theodore Roosevelt, U.S. President in the early years of this century, who brought us laws governing the purity of foods and the wholesomeness of meat sold across state borders. But it was not until Presidents John F. Kennedy proposed, and Lyndon B. Johnson acted more than half a century after Theodore Roosevelt's law, that the U.S. finally ordered that all meat sold in our country, even if produced and sold within a single one of the 50 states, had to be subject to the same standards of wholesomeness as we had required since 1906 on meat sold across state lines. It takes time. It comes piece by piece, slowly, painfully, and only after excruciating battles among our own politicians and economic interests, and often only after consumer tragedies of great sadness.

What, then, the size of the challenge, the dimension of the problem, in helping emerging nations with limited resources to achieve such standards for themselves? Are we, as some of our own nation's leaders foolishly suggested, to leave the people of underdeveloped nations to their own resources and hope that they can solve these problems by free competition among sellers, perhaps through some voluntary business-dominated council on good commercial practices?

Those things never worked--never succeeded--in the United States or in other developed countries. How could they do the job in a small underdeveloped, impoverished nation? Here's where you in the academic world have a genuine responsibility to show, that yes, the free enterprise system works in this country, and we believe in it. But it can only work for us and to our best interests if we maintain and strengthen, and do not abandon, the checks and balances we have worked so hard for so many years to incorporate.

We regretfully know that much of our progress in the consumer area has been made because of tragedies. We remember thalidomide in the 60's and the tragedy of the the elixier of sulfanilamide in the 30's. But we know that consumerism cannot consist merely of uncovering the cause of tragedies and then writing laws to prevent them in the future. Consumerism must seek to bring issues to the forefront--to bring about solutions that not only will prevent old tragedies from recurring but new ones from developing. "No more Bhopals," not in India and not in Charleston, W.Va, either!

We must recognize the impact on underdeveloped nations of the sometimes intimidating techniques used by vast and powerful multi-national corporations seeking new and untapped markets. Business is global, international--consumerism must be the same. Big corporations should not be permitted, let alone encouraged, to dump abroad the products they can no longer legally sell at home. "Made in America" should be a sign of quality, not a warning. And the people of developing nations must have a say in how they want their productive capacity to be used, how their soil is to be used, how their people are to be fed, rather than letting these decisions be made unemotionally in corporation offices half a continent or half a world away.

Yet, look at the opposition earlier drafts of our guidelines have encountered at ECOSOC. One would think that the world's consumers, as represented by IOCU, are visionary but impractical dreamers--troublemakers seeking to tie the hands of international traders and stifle industrial innovation; that their ideas come from the writings of Karl Marx, not from the speeches of John F. Kennedy.

Let's look at three of the most commonly discussed objections to the international guidelines:

First is the objection that the guidelines could hurt international trade because they act as non-tariff barriers to trade. It's true that the consumer protection standard put forth in the guidelines would initially serve to restrain international trade to a degree if not uniformly adopted and implemented. However, once countries unitedly adopt consumer protection measures, these small barriers will effectually disappear as standards are applied. It is especially important, however, that they apply uniformly to both domestic and foreign businesses.

The effect will translate into two important economic changes. The first will be improved product quality for those developing counties with current below-minimum standards and the second will be increased international competition. However, the most important point to make in response to the concern that the guidelines will act as a trade barrier is that safety and health and basic human rights should never be sacrificed to the marketplace. Protections that benefit consumers more than they cost are acceptable--and are not trade barriers when they apply to all.

A second argument against the international guidelines is that the issues of consumer protection should be addressed through self regulation. My response to this objection is that in many cases self regulation simply doesn't work. We've seen evidence of businesses dragging their heels--digging in their heels against proposed consumer protection--for decades now. There doesn't appear to be any evidence that things are different in an international marketplace. In fact, just the opposite is true. The complexity and multiplicity of international issues confronting consumers, and the resulting problems have greatly increased.

A third objection is the view that the guidelines are a move toward international regulation, and a creeping "Global Socialism." There is concern that proponents of the guidelines are in favor of converting the United Nations into a "consumer cop." A New York Times article reporting on some Senate hearings in May of 1983 suggested that according to some trade association testimony the guidelines seemed to be a blueprint for more centrally planned economies, and were not intended for, or practical for, free private enterprise economies. In fact, neither of these suggestions was or is valid. The guidelines explicitly stress the importance of competition in providing consumers with the greatest choice of products and services at the lowest price. And while it is true that governments are requested to voluntarily take many responsibilities, they are requested to do so after the model of countries such as the U.S. that carefully watchtower free enterprise.

I say to opponents in this effort. . .what we want for the consumers in poor countries is no less than what we take for granted for ourselves in the well-off countries. Basic human needs are identical. Is there any theory of human, biological, or ethical practice which makes the aspirations and needs of one people different from the other, and says that one can treat them differently when it comes to these basic principles we are considering? Our hearts go out to the suffering of starving people. . .and our food aid follows our hearts. But what we are calling for through the guidelines--and what IOCU believes in--is extending not just a loaf of bread, but the ability to grow one's wheat, and the assurance that the bread from that wheat will be pure and wholesome. If some multinational wants to make that bread, fine; but the protections abroad should be as good as those here at home. No, I don't think this is asking "too much" in the twentieth century.

I assure you that we are not rocking the foundations of world commerce or instituting a new economic order by trying to bring more rational international consumer standards into existence. Certainly, business executives do not like consumerists getting in their hair and complaining about products and trying to regulate business more effectively. Their jobs, as these executives see them, are to expand sales and profits, not serve as keeper of the world's morality. My heart is warmed by the number of corporate executives who privately, and sometimes even publicly, recognize the need for corporate social accountability. . .and it's a growing group.

The second major IOCU effort at the UN has been the promotion of the publication of banned and hazardous products. I'm happy to say that this has been accomplished. The effort grew out of the IOCU-supported resolution adopted by the General Assembly of the UN two years ago this month calling for "protection against products harmful to health and the environment." The real bite of this resolution lies in the direction to the UN Secretariat to prepare a consolidated list of products whose consumption or sales has been banned, withdrawn, severely restricted, or not approved by governmental regulatory agencies because of test results or hazard implications. This is a splendid example of the effectiveness of the work of IOCU, which your organization helps to support.

The antagonisms to the promulation of the consolidated list by some major multinationals is clear evidence of the potential usefulness of such a list in alerting consumers, and their governments, in less developed nations to irresponsible and unfettered drives for market power. Here, too, I hung my head in shame when the U.S., for the third time, was the only country voting against the publication of this list. Why was this singular dissenting vote cast? Because, we were told, that publication of such a list "cost too much," and interfered with free enterprise and was not needed.

We are developing new mechanisms through IOCU dealing with many of the problems of the globalization of the marketplace: Consumer Interpol, which monitors and reports on global trade in dangerous products; the Health Action International, which tries to monitor and report on pharmaceutical companies' actions; and the Pesticide Action Network, which monitors and reports on the dangers of specific pesticides and their uncontrolled use. There are growing numbers of pro-consumer coalitions, religious and environmental groups, working with consumers on the consolidated list of banned products and related issues.

The work of the Health Action International on a code for pharmaceutical products, similar to the code concerning the marketing of infant formula, is another example. Health Action International's work with the World Health Organization in promoting the use of a catalogue of essential drugs, and restricting drug proliferation based not on health needs but on sales objectives, is a very constructive effort. So we consumers are not, by any means, helpless. International consumer cooperation can be effective. We must expand the use of such tools. It was this group that so effectively organized the Nestle's boycott. And it must be remembered that the complaint was not against the product, but against the way it was promoted.

It is exciting for me to be working in an enlarged consumer endeavor that is new and demanding. The need for our international work is inevitable, given our "global" economy. The challenge is great, and I hope the challenge will be accepted by all of you. I look to you in the academic community to train, educate, and supply the new professionals who will move our efforts forward--professionals who will contribute to our efforts for what I like to call a "better, safer, happier world."